Race To The Top Application

Office of The Governor :: Beverly Perdue

State of North Carolina :: June 2010

III. RACE TO THE TOP APPLICATION ASSURANCES
(CFDA No. 84.395A)

Legal Name of Applicant (Office of the Governor): Office of the Governor (NC) Beverly Eaves Perdue, Governor	Applicant's Mailing Address: Office of the Governor 20301 Mail Service Center Raleigh, NC 27699-0301
Employer Identification Number: 561310675	Organizational DUNS: 003553190
State Race to the Top Contact Name: (Single point of contact for communication) Myra Best	Contact Position and Office: Special Advisor to the Governor for Education and Innovation
Contact Telephone: 919-733-0413	Contact E-mail Address: Myra.best@nc.gov

Required Applicant Signatures:

To the best of my knowledge and belief, all of the information and data in this application are true and correct.

I further certify that I have read the application, am fully committed to it, and will support its implementation:

Governor or Authorized Representative of the Governor (Printed Name): Beverly Eaves Perdue	Telephone: 919-733-5811
Signature of Governor or Authorized Representative of the Governor: Bev Eaves Perdue	Date: 5/27/10
Chief State School Officer (Printed Name): June St. Clair Atkinson	Telephone: 919-807-3430
Signature of the Chief State School Officer: June St.-Clair Atkinson	Date: 5/27/10
President of the State Board of Education (Printed Name): William C. Harrison	Telephone: 919-807-3441
Signature of the President of the State Board of Education: Willm. C Harrison	Date: 5/27/10

IV. ACCOUNTABILITY, TRANSPARENCY, REPORTING AND OTHER ASSURANCES AND CERTIFICATIONS

Accountability, Transparency and Reporting Assurances

The Governor or his/her authorized representative assures that the State will comply with all of the accountability, transparency, and reporting requirements that apply to the Race to the Top program, including the following:

- For each year of the program, the State will submit a report to the Secretary, at such time and in such manner as the Secretary may require, that describes:
    - the uses of funds within the State;
    - how the State distributed the funds it received;
    - the number of jobs that the Governor estimates were saved or created with the funds;
    - the State's progress in reducing inequities in the distribution of highly qualified teachers, implementing a State longitudinal data system, and developing and implementing valid and reliable assessments for limited English proficient students and students with disabilities; and
    - if applicable, a description of each modernization, renovation, or repair project approved in the State application and funded, including the amounts awarded and project costs (ARRA Division A, Section 14008)

- The State will cooperate with any U.S. Comptroller General evaluation of the uses of funds and the impact of funding on the progress made toward closing achievement gaps (ARRA Division A, Section 14009)

- If the State uses funds for any infrastructure investment, the State will certify that the investment received the full review and vetting required by law and that the chief executive accepts responsibility that the investment is an appropriate use of taxpayer funds. This certification will include a description of the investment, the estimated total cost, and the amount of covered funds to be used. The certification will be posted on the State's website and linked to www.Recovery.gov. A State or local agency may not use funds under the ARRA for infrastructure investment funding unless this certification is made and posted. (ARRA Division A, Section 1511)

- The State will submit reports, within 10 days after the end of each calendar quarter, that contain the information required under section 1512(c) of the ARRA in accordance with any guidance issued by the Office of Management and Budget or the Department. (ARRA Division A, Section 1512(c))

- The State will cooperate with any appropriate Federal Inspector General's examination of records under the program. (ARRA Division A, Section 1515)

Other Assurances and Certifications

The Governor or his/her authorized representative assures or certifies the following:

- The State will comply with all applicable assurances in OMB Standard Forms 424B (Assurances for Non-Construction Programs) and to the extent consistent with the State's application, OMB Standard Form 424D (Assurances for Construction Programs), including the assurances relating to the legal authority to apply for assistance; access to records; conflict of interest; merit systems; nondiscrimination; Hatch Act provisions; labor standards; flood hazards; historic preservation; protection of human subjects; animal welfare; lead-based paint; Single Audit Act; and the general agreement to comply with all applicable Federal laws, executive orders and regulations.

- With respect to the certification regarding lobbying in Department Form 80-0013, no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making or renewal of Federal grants under this program; the State will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," when required (34 C.F.R. Part 82, Appendix B); and the State will require the full certification, as set forth in 34 C.F.R. Part 82, Appendix A, in the award documents for all subawards at all tiers.

- The State will comply with all of the operational and administrative provisions in Title XV and XIV of the ARRA, including Buy American Requirements (ARRA Division A, Section 1605), Wage Rate Requirements (section 1606), and any applicable environmental impact requirements of the National Environmental Policy Act of 1970 (NEPA), as amended, (42 U.S.C. 4371 et seq.) (ARRA Division A, Section 1609). In using ARRA funds for infrastructure investment, recipients will comply with the requirement regarding Preferences for Quick Start Activities (ARRA Division A, Section 1602).

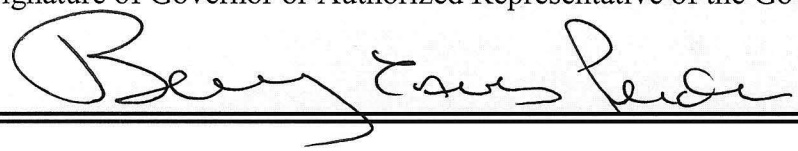
- Any local educational agency (LEA) receiving funding under this program will have on file with the State a set of assurances that meets the requirements of section 442 of the General Education Provisions Act (GEPA) (20 U.S.C. 1232e).

- Any LEA receiving funding under this program will have on file with the State (through either its Stabilization Fiscal Stabilization Fund application or another U.S. Department of Education Federal grant) a description of how the LEA will comply with the requirements of section 427 of GEPA (20 U.S.C. 1228a). The description must include information on the steps the LEA proposes to take to permit students, teachers, and other program beneficiaries to overcome barriers (including barriers based on gender, race, color, national origin, disability, and age) that impede access to, or participation in, the program.

- The State and other entities will comply with the Education Department General Administrative Regulations (EDGAR), including the following provisions as applicable: 34 CFR Part 74–Administration of Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations; 34 CFR Part 75–Direct Grant Programs; 34 CFR Part 77– Definitions that Apply to Department Regulations; 34 CFR Part

80– Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, including the procurement provisions; 34 CFR Part 81– General Education Provisions Act–Enforcement; 34 CFR Part 82– New Restrictions on Lobbying; 34 CFR Part 84–Governmentwide Requirements for Drug-Free Workplace (Financial Assistance); 34 CFR Part 85–Governmentwide Debarment and Suspension (Nonprocurement).

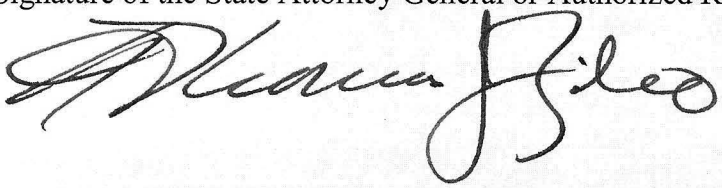
SIGNATURE BLOCK FOR CERTIFYING OFFICIAL

Governor or Authorized Representative of the Governor (Printed Name):	
Beverly Eaves Perdue	
Signature of Governor or Authorized Representative of the Governor: 	Date: 5/27/10

State Attorney General Certification

I certify that the State's description of, and statements and conclusions concerning, State law, statute, and regulation in its application are complete, accurate, and constitute a reasonable interpretation of State law, statute, and regulation.
(See especially Eligibility Requirement (b), Selection Criteria (B)(1), (D)(1), (E)(1), (F)(2), (F)(3).)

I certify that the State does not have any legal, statutory, or regulatory barriers at the State level to linking data on student achievement (as defined in this notice) or student growth (as defined in this notice) to teachers and principals for the purpose of teacher and principal evaluation.

State Attorney General or Authorized Representative (Printed Name):	Telephone:
Thomas J. Ziko, Senior Deputy Attorney General	919-716-6920
Signature of the State Attorney General or Authorized Representative: 	Date: 5/27/10

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SELECTION CRITERIA: PROGRESS AND PLANS IN THE FOUR EDUCATION REFORM AREAS

(A) State Success Factors (125 total points)

(A)(1) Articulating State's education reform agenda and LEAs' participation in it *(65 points)*

The extent to which—

(i) The State has set forth a comprehensive and coherent reform agenda that clearly articulates its goals for implementing reforms in the four education areas described in the ARRA and improving student outcomes statewide, establishes a clear and credible path to achieving these goals, and is consistent with the specific reform plans that the State has proposed throughout its application; *(5 points)*

(ii) The participating LEAs (as defined in this notice) are strongly committed to the State's plans and to effective implementation of reform in the four education areas, as evidenced by Memoranda of Understanding (MOUs) (as set forth in Appendix D) or other binding agreements between the State and its participating LEAs (as defined in this notice) that include— *(45 points)*

(a) Terms and conditions that reflect strong commitment by the participating LEAs to the State's plans;

(b) Scope-of-work descriptions that require participating LEAs (as defined in this notice) to implement all or significant portions of the State's Race to the Top plans; and

(c) Signatures from as many as possible of the LEA superintendent (or equivalent), the president of the local school board (or equivalent, if applicable), and the local teachers' union leader (if applicable) (one signature of which must be from an authorized LEA representative) demonstrating the extent of leadership support within participating LEAs (as defined in this notice); and

(iii) The LEAs that are participating in the State's Race to the Top plans (including considerations of the numbers and percentages of participating LEAs, schools, K-12 students, and students in poverty) will translate into broad statewide impact, allowing the State to reach its ambitious yet achievable goals, overall and by student subgroup, for—*(15 points)*

(a) Increasing student achievement in (at a minimum) reading/language arts and mathematics, as reported by the NAEP and the assessments required under the ESEA;

(b) Decreasing achievement gaps between subgroups in reading/language arts and mathematics, as reported by the NAEP and

the assessments required under the ESEA;

(c) Increasing high school graduation rates (as defined in this notice); and

(d) Increasing college enrollment (as defined in this notice) and increasing the number of students who complete at least a year's worth of college credit that is applicable to a degree within two years of enrollment in an institution of higher education.

In the text box below, the State shall describe its current status in meeting the criterion, as well as projected goals as described in (A)(1)(iii). The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (A)(1)(ii):

- An example of the State's standard Participating LEA MOU, and description of variations used, if any.
- The completed summary table indicating which specific portions of the State's plan each LEA is committed to implementing, and relevant summary statistics (see Summary Table for (A)(1)(ii)(b), below).
- The completed summary table indicating which LEA leadership signatures have been obtained (see Summary Table for (A)(1)(ii)(c), below).

Evidence for (A)(1)(iii):

- The completed summary table indicating the numbers and percentages of participating LEAs, schools, K-12 students, and students in poverty (see Summary Table for (A)(1)(iii), below).
- Tables and graphs that show the State's goals, overall and by subgroup, requested in the criterion, together with the supporting narrative. In addition, describe what the goals would look like were the State not to receive an award under this program.

Evidence for (A)(1)(ii) and (A)(1)(iii):

- The completed detailed table, by LEA, that includes the information requested in the criterion (see Detailed Table for (A)(1), below).

Recommended maximum response length: Ten pages (excluding tables)

A.1. North Carolina's Education Reform Agenda and Partnership with LEAs

A.1.i The NC Reform Agenda

Career and College: Ready, Set, Go!: **Continuing a Strong Tradition of Education Reform**

The race to provide the best education for all students is not a single sprint but a series of marathons. Only those who have a strong history of racing success and an ongoing commitment to meeting new challenges will be able to stay on track as conditions change and new finish lines are drawn.

In that spirit, Governor Beverly Perdue recently unveiled her *Career and College: Ready, Set, Go!* plan to guide the next leg of NC's continuous race to improve educational outcomes for all students. Based on education research and years of lessons learned from a history of statewide innovation, Governor Perdue's plan centers on strengthening and aligning the State's education system so that it meets the needs of all NC citizens "from the high chair to the rocking chair." The Governor's plan will drive NC to ensure that every student, from pre-kindergarten through graduate school:

- Comes to school prepared to progress successfully through PK-20 education;
- Meets clear, ambitious State standards for knowledge, skills, and abilities; and
- Receives guidance from excellent teachers and principals who are able to help the student achieve those standards.

The ultimate goal of the *Career and College: Ready, Set, Go!* plan is for every NC student to graduate from high school ready for a career, two- or four-year college, or technical training, and therefore be prepared to become a productive member of the workforce. To accomplish this ambitious goal, the plan requires NC to:

- Update NC's statewide PK-12 Standard Course of Study and school accountability system so that each reflects internationally benchmarked ***standards and assessments*** that prepare students for success in college and the workplace;
- Establish and increase the use of ***robust data systems*** that measure student success and inform teachers, principals, and policymakers about how they can improve delivery of educational services to students;

- Increase ***teacher and principal effectiveness***, so that every student has a great teacher and every school has a great principal; and
- ***Turn around our lowest-achieving schools***, so that all students get the support they need to be successful.

NC already is racing to accomplish these goals; with Race to the Top (RttT) funding, we will be able to move further and faster.

A Track Record of Major Initiatives

The RttT effort is not the State's first race, nor is it the final leg. Rather, the NC RttT plan capitalizes on NC policymakers' and educators' history of pioneering school innovation, and establishes sustainable statewide capacity that will enable NC to respond to future challenges. NC has demonstrated an ability to implement fundamental, statewide education reform in each of the past four decades, as NC leaders continually have propelled the State's public schools to higher levels of accomplishment.

In the wake of *A Nation at Risk (1983)*, NC established and funded significant curriculum standards and school improvement measures known collectively as the Basic Education Plan. This approach provided a comprehensive curriculum for all students; an emphasis on dropout prevention; and initiatives to equalize opportunities for students across the State. In 1996-97, with the leadership of then-Governor James B. Hunt, NC adopted the State's first comprehensive school accountability model, the ABCs of Public Education (ABCs). The ABCs built on a robust State end-of-grade testing program in grades 3 through 8 (instituted three years earlier) and on high school end-of-course tests (in place for core subjects since the 1980s). The ABCs focus on students' annual achievement growth provided the State with a balanced approach to assessing school performance. Once again looking to improve the system, in 2007 the NC State Board of Education (State Board) adopted the following goals, signaling that NC would continue its commitment to pursuing systemic changes to improve student outcomes (see Appendix 1 for the full list of the sub-goals):

1. NC public schools will produce globally competitive students.
2. NC public schools will be led by 21st century professionals.
3. NC public school students will be healthy and responsible.

4. Leadership will guide innovation in NC public schools.
5. NC public schools will be governed and supported by 21st century systems.

Governor Perdue's *Career and College: Ready, Set, Go!* agenda provides NC with an action plan for reaching these goals, as well as the framework for the RttT initiatives described in this proposal.

NC RttT Plan Context: NC Public Schools Landscape

NC has moved forward systematically and aggressively to address the State Board goals throughout all of the State's local education agencies (LEAs), which together contain approximately 2,500 traditional and charter schools, 191,000 staff, and a diverse population of over 1.4 million students (54.2% white, 31.2% black, 10.7% Hispanic, 2.5% Asian, and 1.4% American Indian), about half of whom – more than 700,000 – are classified as being from economically disadvantaged homes. NC LEAs are comprised of a few large urban school districts and many small districts. The two largest LEAs, Wake County and Charlotte-Mecklenburg, each serve more than 133,000 students. Each of the other 98 counties in NC also comprises an LEA, with 85 of these counties classified as rural. In addition, there are 15 towns that serve as their own LEAs, for a total of 115 LEAs statewide. According to the National Center for Education Statistics, NC contains 1,100 schools in rural areas and 354 schools in small towns. Many of these areas are economically distressed as a result of changes in their traditional agrarian and manufacturing economies. School reform in these communities involves different challenges and requires different strategies than reform in urban communities; the State Board of Education has even taken the step of intervening directly in one of the State's most challenged rural districts. As a result, while NC must grapple with the challenges of implementing reform in large urban districts, the State also is well-positioned to make significant contributions to the national discussion about improving rural schools.

Goals and Targets for the NC RttT Plan

The NC RttT plan is designed to set directions and build capacity that will result in sustainable, long-term improvements in NC public education. We will gauge the degree to which we are successful in that mission using the measureable goals listed in Table 1. Baseline data and targets through 2016-17 for each goal are provided in Table 1; detailed data and targets for various student populations are in Appendix 2.

Table 1: Goals, Measures, Baselines, and Final RttT Targets

GOAL	MEASURE	BASELINE 2009-2010	2010-2011	2011-2012	2012-2013	TARGET 2013-14	*2014-2015*	*2015-2016*	*2016-2017*
1. Student achievement	NAEP reading, grade 4	219 (2009)		223 (2011)		229 (2013)		233 (2015)	
	NAEP reading, grade 8	260 (2009)		264 (2011)		270 (2013)		274 (2015)	
	NAEP math, grade 4	244 (2009)		248 (2011)		254 (2013)		258 (2015)	
	NAEP math, grade 8	284 (2009)		288 (2011)		294 (2013)		298 (2015)	
2. Graduation rates	4-year rate	71.70%	74%	76%	79%	82%	84%	85%	86%
3. College readiness	Average SAT composite (% graduates taking)	1,006 (63%)	1,009 (65%)	1,014 (67%)	1,019 (69%)	1,025 (72%)	1,030 (74%)	1,033 (76%)	1,035 (78%)
	Graduates scoring 3 or above on one or more AP exams	17.3%	18%	19%	20%	21%	22%	23%	24%
	Proportion of freshmen enrolled in at least one remedial course: UNC	11% (2008)	9%	8%	7%	6%	5%	4%	3%
	Proportion of freshmen enrolled in at least one remedial course: Comm Coll*	64% (2008)	60%	56%	52%	48%	45%	42%	39%
4. College enrollment	Percentage of high school graduates who enroll in postsecondary programs	65.6% (2006, NCES)	66.00%	68%	70%	72%	74%	76%	78%

* NC Community Colleges have open enrollment; about 18% of high school graduates attend Community Colleges, and the cutoff placement cut scores vary by discipline and Community College.

We have not included State-administered test data in these targets because NC standards and assessments are undergoing significant revisions that will inhibit accurate comparisons across years. As each new State assessment is put into place, we will establish a baseline for it and track improvements, both overall and by student subgroup.

Our goals and targets build upon the significant progress we have already made in NC. For example, the NC average grade 4 math NAEP score improved from 212 in 1992 to 244 in 2009, and the average grade 8 math score improved from 250 to 284 during the same period – in both cases moving from below the national average to above it. The NC average math SAT score also has shows a strong pattern of improvement, increasing from 493 in 1999 to 511 in 2009, moving from 18 points below to just 4 points below the national average. NC reading scores have not shown improvement on either the NAEP or SAT; however, in recent years the State has intensified its efforts to improve reading through preschool programs, the Reading First program, and initiatives focused on improving reading for special education students and students with limited English proficiency (see Section A3). NC graduation rates have improved steadily, with the four-year cohort rate increasing from 68% in 2006 (when the current method for measuring the rate was first used) to 72% in 2009. Mortenson (2008), using National Center for Education Statistics data, reports that NC enrollment in a two-year or four-year college in the year following high school graduation rose from 48.3% in 1986 to 65.6% in 2006, the eighth-largest percentage gain in the nation. The number of NC students taking AP exams also has increased and is above the national average. Additional details about these gains are provided in Section A3.

While we have seen increases across all student subgroups on these measures, the achievement gaps among student groups have not been reduced significantly. Our RttT goals also include a reduction of at least 10% in the achievement gaps shown by ethnic- and language-minority students, students with disabilities, and low-income students on each of the measures in Table 1. (The available subgroup data relevant to each measure in Table 1 are provided in Appendix 2.) This goal reflects the planned focused effort on improving low-achieving schools, which serve disproportionate numbers of minority, low-income students and special needs students, as well as a rapidly-growing population of language-minority students.

NC RttT Plan Priority: Great Teachers for Every Student, A Great Principal for Every School

While our NC RttT plan addresses thoroughly all four RttT reform areas, our emphasis is on strengthening the education workforce to ensure that every student has effective teachers and every school has effective leadership. Setting this as our highest priority is based on the following information:

- Research evidence that teacher quality is the largest determinant of student achievement gains that can be impacted by the school (Sanders *et al*., 1997; Rice, 2003);
- Evidence from the NC Teacher Working Conditions Survey (Hirsch & Emrick, 2007) and related research (*e.g.*, Ingersoll, 2001, Reiman *et al*., 2007) that effective leadership at the school level is essential for recruiting and retaining an effective teaching staff and for increasing student achievement;
- Data on the inequitable distribution of effective teachers and principals in NC, which highlight the need to strengthen the education workforce in low-performing schools and districts (see the Overview for Section D);
- Data on the retention rates and projections of the retirement rates of teachers and principals in NC, which point to potential critical shortages in the NC education workforce in the coming years (Reiman *et al*., 2007);
- Data documenting a shortage of qualified teachers of mathematics and the sciences and of teachers of students with disabilities and students with limited English proficiency (see the Overview for Section D); and
- Documentation of need in low-performing schools for increased numbers of effective teachers and strong leadership of turnaround processes that are responsive to the different challenges posed by specific urban or rural contexts (see Section E).

Overview of Proposed NC RttT Initiatives

Table 2 provides an overview of the major proposal initiatives and the major goals of each. Many of these initiatives are linked and mutually supportive in practice. For example, the professional development initiative in Section D5 provides the capacity to deliver professional development for both the transition to new standards and assessment described in Section B3, and use of the data systems to support instruction described in Section C. The professional development initiative also will support efforts to turn around the

lowest-achieving schools, as described in Section E. Table 2 table does not include related initiatives for which RttT funding is not requested, such as NC's ongoing work to develop updated summative assessments and to enhance the State longitudinal data system.

Table 2: Overview of NC RttT Initiatives

SECTION	INITIATIVES	GOALS
A. State Success Factors		
A2	Technology infrastructure and resources	• Establish PK-12 education technology "cloud" infrastructure to provide cost-effective and robust networking infrastructure for LEAs • Provide digital tools and resources to support all RttT initiatives • Prepare all educators to make effective use of online resources and tools (linked to D5: Prof. Devel.)
A2	Evaluation and policy analyses	• Provide ongoing evaluations to inform continuous improvement of RttT initiatives • Provide summative analyses to inform future program, policy, and funding decisions • Conduct analyses of NC policies to inform the removal of policy barriers and the development of policies that support reforms
B. Standards and Assessment		
B3	Transition to new standards and assessments	• Generate stakeholder support for transition • Ensure that all teachers understand the new standards and assessments • Ensure that stakeholders understand and use summative assessments effectively and appropriately
C. Data Systems to Support Instruction		
C2	State data use	• Ensure that NC data are accessible to all relevant stakeholders • Ensure that all relevant stakeholders are prepared to make effective and appropriate use of the data (linked to D5: Professional Development) • Ensure that data are used to support decision-making and continuous improvement processes
C3	Instructional Improvement System	• Increase the use of instructional improvement systems • Develop a statewide instructional improvement system to support curriculum-embedded assessments, diagnostic assessments, curriculum monitoring, and summative assessments to inform teacher planning and student placement decisions • Provide technology infrastructure to support effective use of the instructional improvement system • Prepare teachers to make effective use of the instructional improvement system (linked to D5) • Improve student achievement outcomes, especially for low-performing students
D. Great Teachers and Leaders		
D2	Teacher and principal evaluation processes	• Fully implement the new NC teacher and principal evaluation processes statewide, with student achievement growth data used as a significant component in the balanced evaluation
D2	Performance incentives for lowest-achieving schools	• Provide opportunities to earn incentives based on student performance • Transition to classroom-level incentives by 2012-13

SECTION	INITIATIVES	GOALS
D2	Teacher effectiveness evaluation planning	• Develop, with the engagement of all stakeholders, a state-level, equitable, reliable, and transparent system for integrating student achievement growth data into evaluations for all teachers and principals
D3	Regional Leadership Academies	• Increase the number of principals qualified to lead transformational change in low-performing schools in both rural and urban areas
D3	Expand teacher recruitment and licensure programs	• Teach for America – Increase the number of TFA teachers in low-performing schools; focus recruitment on specific needs of each LEA • NC Teacher Corps – Using a TFA-like approach, recruit and prepare NC college graduates to teach in low-performing schools that are not served by TFA • Induction Support Program for New Teachers – Provide comprehensive, three-year induction program for novice teachers in low-achieving schools
D3	Strategic staffing initiatives	• Support LEA development, implementation, and evaluation of programs to strengthen staffing in low-performing schools and high-needs subjects and specialties
D3	North Carolina Virtual Public School expansion	• Expand the availability and use of virtual courses in mathematics and science in low-performing schools and other schools in which curriculum offerings are limited and qualified teachers unavailable locally
D4	Research on effectiveness of teacher and principal preparation programs	• Use data and lessons learned to inform decisions about program improvements, expansion and closure
D5	Professional development	• Create, train, and support a cadre of teacher and principal professional development leaders to establish sustainable professional development capacity statewide • Develop resources (for workshops, professional learning communities, virtual courses, webinars, *etc*.) to support effective professional activities, with the capacity to create additional resources as needed • Align professional development with reform initiatives in the RttT plan. • Expand the online professional development infrastructure to provide accessible and high-quality online professional development for all educators throughout NC • Evaluate professional development activities to determine the impact on teaching practices and student achievement, to inform continuous improvement of professional development activities
E. Turning Around the Lowest-Achieving Schools		
E2	District and School Transformation support system	• Improve performance of all low-performing schools, with a specific target of moving all schools above the 60% performance level
E2	Science, Technology, Engineering, and Mathematics (STEM) thematic schools	• Develop four coordinated STEM anchor schools, each focused on a major area relevant to NC economic development • Use the anchor schools as centers for professional development, curriculum development, technology use, and innovation to impact networks of STEM schools throughout NC

Figure 1 summarizes NC's RttT initiatives. The graphic illustrates that student outcomes are at the center of our efforts and that the reform areas and initiatives comprise a coherent plan in which each component depends upon and reinforces the others. This graphic will appear throughout the proposal to indicate how the initiatives described in each section connect to the overarching vision and to each other.

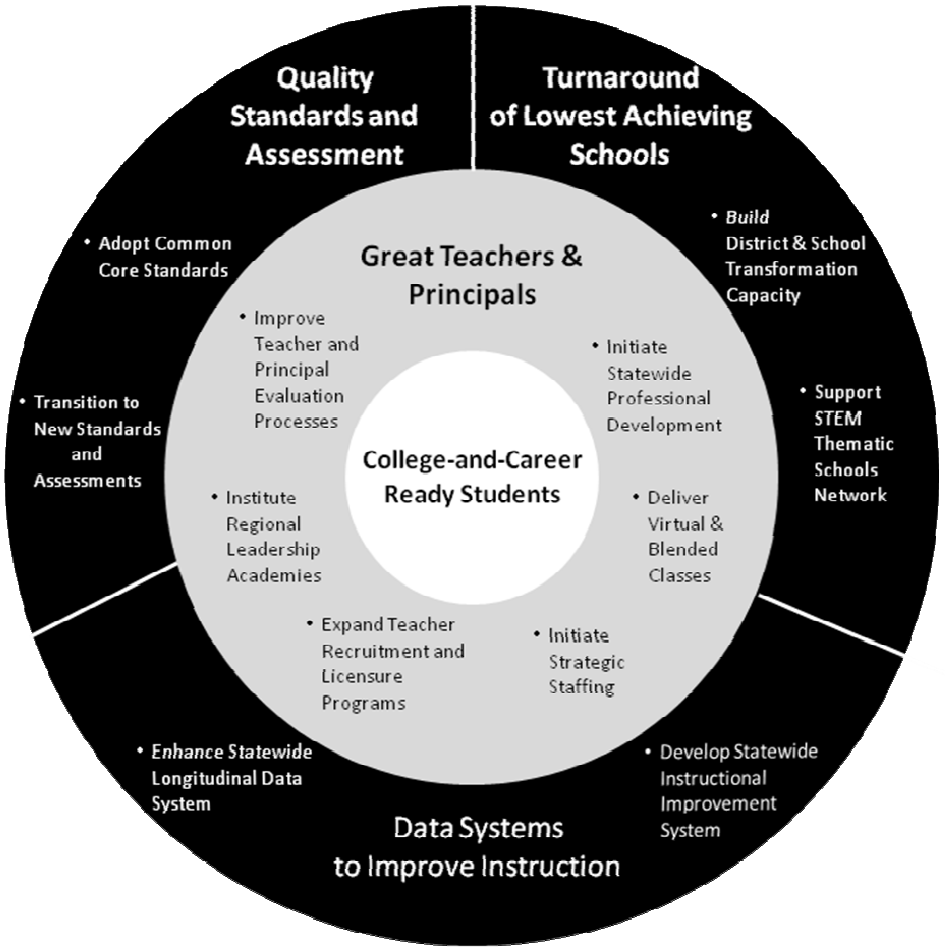


Figure 1: Ready, Set, Go – An Action Plan for North Carolina's Race to the Top

A.1.ii.and A.1.iii. LEA Participation and Statewide Impact

The NC RttT plan benefits from unanimous support and commitment from all 115 LEAs. This partnership will ensure broad statewide implementation and will heighten the likelihood that the State will reach its goals for student achievement, achievement gap closure, graduation, and career- and college-readiness.

All NC LEAs have committed to participate in the NC RttT initiatives. Superintendents of all 115 NC LEAs have signed the NC RttT Memorandum of Understanding (MOU), along with the Chairs of their local school boards and the local President of the NC Association of Educators, which is the state teachers' association affiliated with the National Education Association. As shown in the summary tables below, all LEAs have agreed to participate in all initiatives that are relevant to their schools, which include the initiatives addressed in Sections B, C and D of this proposal. Since 48 LEAs contain the lowest-achieving schools, as defined the criteria in Section E2, only those LEAs are eligible to participate in the initiative to support these schools; however, all other LEAs have agreed that should any of their schools reach lowest-achieving status, they also will participate in the turnaround initiatives described in Section E2. This commitment from all LEAs – as well as from teachers in every LEA – reflects the history of collaboration in NC, the engagement of all stakeholders in the RttT proposal development process, and the leadership provided by the Governor, State Superintendent, Chair of the State Board of Education, and leaders of the teachers, administrators, and school board associations.

Since all LEAs have agreed to participate, NC RttT will serve 100% of the overall student population, 100% of the students in poverty, and 100% of the schools that fall into the lowest-achieving category, as defined in Section E. See Appendix 3 for NC's Participating LEA MOU and the detailed table showing the list of LEAs, signatories, and initiatives in which they have agreed to participate.

Summary Table for A.1.ii.b

Elements of State Reform Plans	Number of LEAs Participating (#)	Percentage of Total Participating LEAs (%)
B. Standards and Assessments		
(B)(3) Supporting the transition to enhanced standards and high-quality assessments	115	100
C. Data Systems to Support Instruction		
(C)(3) Using data to improve instruction:		
(i) Use of local instructional improvement systems	115	100
(ii) Professional development on use of data	115	100
(iii) Availability and accessibility of data to researchers	115	100
D. Great Teachers and Leaders		
(D)(2) Improving teacher and principal effectiveness based on performance:		
(i) Measure student growth	115	100
(ii) Design and implement evaluation systems	115	100
(iii) Conduct annual evaluations	115	100
(iv)(a) Use evaluations to inform professional development	115	100
(iv)(b) Use evaluations to inform compensation, promotion and retention	115	100
(iv)(c) Use evaluations to inform tenure and/or full certification	115	100
(iv)(d) Use evaluations to inform removal	115	100
(D)(3) Ensuring equitable distribution of effective teachers and principals:		
(i) High-poverty and/or high-minority schools	115	100
(ii) Hard-to-staff subjects and specialty areas	115	100
(D)(5) Providing effective support to teachers and principals:		
(i) Quality professional development	115	100
(ii) Measure effectiveness of professional development	115	100
E. Turning Around the Lowest-Achieving Schools		
(E)(2) Turning around the lowest-achieving schools	115*	100*
*In 2009-2010, only 48 LEAs contained lowest-achieving schools eligible for the supports detailed in Section E2. All LEAs agree to participate, however, in the event that one or more of their schools becomes eligible in the future.		

Summary Table for A.1.ii.c

Signatures acquired from participating LEAs:			
Number of Participating LEAs with all applicable signatures			
	Number of Signatures Obtained (#)	**Number of Signatures Applicable (#)**	**Percentage (%)** (Obtained / Applicable)
LEA Superintendent (or equivalent)	115	115	100
President of Local School Board (or equivalent, if applicable)	115	115	100
Local Teachers' Union Leader (if applicable)	115	115	100

Summary Table for A.1.iii

	Participating LEAs (#)	**Statewide (#)**	**Percentage of Total Statewide (%)** (Participating LEAs / statewide)
LEAs	115	115	100
Schools	2,399	2,399	100
K-12 Students	1,410,497	1,410,497	100
Students in poverty	700,038	700,038	100

(A)(2) Building strong statewide capacity to implement, scale up, and sustain proposed plans *(30 points)*

The extent to which the State has a high-quality overall plan to—

(i) Ensure that it has the capacity required to implement its proposed plans by— *(20 points)*

(a) Providing strong leadership and dedicated teams to implement the statewide education reform plans the State has proposed;

(b) Supporting participating LEAs (as defined in this notice) in successfully implementing the education reform plans the State has proposed, through such activities as identifying promising practices, evaluating these practices' effectiveness, ceasing ineffective practices, widely disseminating and replicating the effective practices statewide, holding participating LEAs (as defined in this notice) accountable for progress and performance, and intervening where necessary;

(c) Providing effective and efficient operations and processes for implementing its Race to the Top grant in such areas as grant administration and oversight, budget reporting and monitoring, performance measure tracking and reporting, and fund disbursement;

(d) Using the funds for this grant, as described in the State's budget and accompanying budget narrative, to accomplish the State's plans and meet its targets, including where feasible, by coordinating, reallocating, or repurposing education funds from other Federal, State, and local sources so that they align with the State's Race to the Top goals; and

(e) Using the fiscal, political, and human capital resources of the State to continue, after the period of funding has ended, those reforms funded under the grant for which there is evidence of success; and

(ii) Use support from a broad group of stakeholders to better implement its plans, as evidenced by the strength of the statements or actions of support from— *(10 points)*

(a) The State's teachers and principals, which include the State's teachers' unions or statewide teacher associations; and

(b) Other critical stakeholders, such as the State's legislative leadership; charter school authorizers and State charter school membership associations (if applicable); other State and local leaders (*e.g.*, business, community, civil rights, and education association leaders); Tribal schools; parent, student, and community organizations (*e.g.*, parent-teacher

associations, nonprofit organizations, local education foundations, and community-based organizations); and institutions of higher education.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. The State's response to (A)(2)(i)(d) will be addressed in the budget section (Section VIII of the application). Attachments, such as letters of support or commitment, should be summarized in the text box below and organized with a summary table in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (A)(2)(i)(d):

- The State's budget, as completed in Section VIII of the application. The narrative that accompanies and explains the budget and how it connects to the State's plan, as completed in Section VIII of the application.

Evidence for (A)(2)(ii):

- A summary in the narrative of the statements or actions and inclusion of key statements or actions in the Appendix.

Recommended maximum response length: Five pages (excluding budget and budget narrative)

A.2. Building strong statewide capacity to implement, intensify and sustain proposed plans

NC has the structural capacity, leadership, and stakeholder support to implement effectively its RttT proposal and extend the work beyond the life of the grant.

A.2.i. Capacity to Implement RttT Initiatives

A.2.i.a Strong Leadership and Dedicated Teams

The NC RttT plan is strengthened by the presence of a committed and experienced leadership team with the expertise to ensure that all reforms will be implemented successfully. In addition, to ensure sufficient resources are devoted to this unprecedented implementation challenge, NC will establish a dedicated NC RttT Project Management Office within NCDPI. This combination of existing and new capacity will give the NC RttT effort both grounding and continuity, as well as the ability to move more nimbly and efficiently to execute our ambitious plan.

NC recognizes that implementing NC's RttT plan successfully will be an enormous challenge. To meet this challenge, NC's RttT initiatives will have the advantages of strong State leadership, a foundation of ongoing related initiatives, a proven project management framework, and a capable management team already in place. In addition, NC will use RttT funds to establish a dedicated RttT Project Management Office, located within NCDPI, that will coordinate implementation. The following subsections describe the key elements of the NC RttT governance and management framework.

State Board of Education

The State Board, led by current Chairman, Dr. William Harrison, will be responsible for the *oversight* of NC's RttT initiatives. Per its statutory authority and responsibility, the State Board sets policy and provides centralized state infrastructure and oversight for the NC system of public schools through NCDPI. This work includes driving major education reform initiatives. NCDPI staff report monthly to the State Board regarding the status of these initiatives and progress toward achieving priority measurable objectives, which are reflected in the NCDPI Performance Navigator (see below). The State Board will employ this same well-established procedure to drive the NC RttT efforts.

On January 6, 2010, the State Board passed a resolution (see Appendix 4) endorsing our first-round RttT proposal and confirming the following:

1. NC will work in collaboration with other states on assessments based upon the Common Core standards, as described in Section B1;
2. NC is committed to using student achievement growth data as a significant part of teacher and principal evaluation, after undergoing a process engaging all stakeholders to determine a valid, fair, and reliable way to do so, as described in Section D2; and
3. The Regional Leadership Academies described in Section D3 are approved for certifying principals.

NC Department of Public Instruction (NCDPI)

NCDPI Chief Executive Officer, State Superintendent Dr. June Atkinson, will be responsible for managing the *implementation* of RttT initiatives, though she will delegate daily project management responsibilities to the NC RttT Lead Project Manager and Initiative Leaders, who will be members of her NCDPI senior management team (see below). NCDPI provides the statewide infrastructure to support LEAs and charter schools. Statewide support systems include budget and financial, student information, teacher and principal licensure, and content standards and aligned assessments. Against this backdrop, NCDPI also has recent experience managing large, complex reform initiatives. For example, NC has been focused on reforming standards and assessments through its ongoing Accountability & Curriculum Reform Effort (see Section B), developing a robust P-13 Statewide Longitudinal Data System (see Section C), implementing new statewide teacher and principal standards and aligned evaluation instruments (see Section D), and delivering support to NC's lowest-achieving districts and schools (see Section E). In several of these efforts, NCDPI has received strategy and planning assistance from the Boston Consulting Group, with support from the Bill & Melinda Gates Foundation. The capacities and team structures developed, as well as the lessons learned from these large projects, give the NCDPI a solid foundation upon which to build the NC RttT project governance and management plan**.**

Initiative Leaders

To capitalize on the experience of the NCDPI leaders who have driven (and/or continue to drive) the projects noted above, the NC RttT senior management team will be comprised of members of Dr. Atkinson's leadership team who already are responsible for the areas of work that correspond with each NC RttT initiative. These experienced and embedded "subject matter experts," will serve as RttT initiative leaders or "sponsors," ensuring that initiatives are properly scoped and inclusive of input from multiple stakeholders, and that deliverables are met effectively and on time. This work will not be additional to their existing duties; as NCDPI's has already organized itself to deliver on reforms that span the four RttT assurance areas and are part of the NC RttT plan, sponsoring RttT initiatives is simply a primary part of the NCDPI leaders' daily roles. The staff currently identified for leading the individual RttT initiatives are:

- Dr. Rebecca Garland, Chief Academic Officer;
- Angela Quick, Deputy Chief Academic Officer and Project Director for Assessment and Curriculum Reform;
- Adam Levinson, Director of Policy and Strategic Planning, and Project Director for the P-13 and P-20 Data System efforts;
- Dr. Patricia Ashley, Director, District and School Transformation Division; and
- Dr. Lynne Johnson, Director, Office of Educator Recruitment and Retention.

The initiative leads will also draw on the significant content and implementation expertise of other leaders in NCDPI, such as the directors of programs focused on delivering career and technical education, and those focused on meeting the needs of exceptional children, preschoolers, and children who have limited English proficiency. In addition, the NCDPI senior staff responsible for finance and contracting, IT, HR, and communications will be part of the NC RttT management team to ensure all necessary support service resources are available to assist the initiative leaders and RttT Project Management Office. Information about the credentials of each member of the NC RttT management team, and some of the other DPI leaders, is provided in Appendix 5.

Dedicated RttT Project Management Office

To assist the existing NCDPI leaders in managing this expanded work, the RttT funds will also support a dedicated RttT Project Management Office. The Project Management Office will be lead by a dedicated RttT-funded Lead Project Manager, who, assisted by other RttT-funded project management staff (see budget for Section A2), will oversee the following activities:

- Coordinating the overall effort by facilitating planning, communication, and collaboration across the initiatives;
- Managing collaborations with university, college, and non-profit partners (see below);
- Ensuring each initiative team has the management support and resources it needs to be successful;
- Initiating and monitoring detailed scope of work agreements with LEAs (see Section A.2.i.b);
- Managing the State procurement processes with subcontractors;
- Reporting to USED; and
- Other project-related administrative functions.

Finally, the Project Management Office also will ensure that each initiative lead has the dedicated project management assistance (*i.e.*, additional, RttT-dedicated personnel funded through RttT; see budget for Section A2) and additional NCDPI staff support needed to accomplish each set of RttT initiative objectives within the defined timelines.

Other Organizations[1]

While the NCDPI will be responsible for overall NC RttT management, other organizations will play key roles in much of the work. Anticipated partnerships include the following:

[1] Engagement of these partners and all others mentioned throughout the NC RttT proposal will be subject to State and Federal procurement regulations.

- The University of North Carolina (UNC) General Administration will lead the effort to reform teacher and principal preparation programs (see Section D4), and individual UNC Colleges of Education and research units will be involved in many of the RttT initiatives (such as those described in Sections D2, D3, and D4);
- MCNC, which manages the NC Research and Education Network and plays a central role in the School Connectivity Initiative, will lead development of the NC RttT technology support components (see Section A.2.i.b, below);
- The NC Professional Teaching Standards Commission will play a major role in the continued development of the teacher and administrator evaluation processes (described in Section D2);
- The professional development providers listed in Appendix 6 and others will be involved in the NC RttT professional development efforts (described in Section D5); and
- The NC New Schools Project and NC STEM Community Collaborative will support the development of additional STEM high schools (described in Section E).

These entities will have contractual roles and deliverables as part of the RttT plan. We anticipate that additional subcontractors will be engaged for designated parts of the RttT effort, using accelerated State procurement processes to move the RttT work forward quickly.

NC RttT Evaluation

Evaluation, designed to inform both continuous improvement of the initiatives and future policy and funding decisions, is critical to ensure that NC RttT initiatives have sustained impact on NC schools. The RttT guidelines request evaluations specifically in Section D4, to establish the relationship of preservice programs to student achievement, and in D5, on the effectiveness of professional development programs. Those specific evaluation plans are addressed further in those sections. In addition, we include a plan to evaluate all NC RttT initiatives. The evaluations will be designed to determine impact on the target goals of each initiative and on the overall NC RttT student goals described above. The evaluations will extract lessons learned about effective practices, recognizing that effective practices are often context-sensitive, which will enable NC RttT to share findings internally as well as with the broader

national education community. We will employ a rigorous, mixed-methods evaluation approach that integrates quantitative and qualitative data collection and analyses.

The NC RttT evaluation plan is designed to provide both formative and summative information for the individual initiatives as well as for the overall NC RttT effort. The evaluation effort in year 1 will focus on baseline student, teacher, classroom, school, and district measures across all initiatives. Year 2 will emphasize data collection around the implementation processes of initiatives. In years 3 and 4, evaluation efforts will focus on impact and effectiveness as well as on sustainability and cost-benefit analyses. Results will be shared on a regular basis with NC RttT leadership, as well as with the stakeholder communities. In addition, evaluation will be linked to policy analyses that consider how current policies facilitate or inhibit educational reforms and how NC policies might be revised to support RttT and other reform initiatives.

Using collaborative approaches and guided by NC RttT management, we anticipate that the RttT Evaluation Team will be comprised of staff from university-based teams like those that are already involved in evaluations of NC education initiatives and analyses of NC education policies. Such organizations include the SERVE Center at UNC-Greensboro (which operates the US Department of Education-funded Regional Educational Laboratory-Southeast and will coordinate the overall RttT evaluation effort), the Friday Institute for Educational Innovation at NC State University, and the Carolina Institute for Public Policy at UNC-Chapel Hill. The Evaluation Team also will conduct studies of overall, cross-initiative impacts, with an eye toward understanding variations in the implementation of combinations of strategies across the 115 LEAs and the relationship between these variations and improved student outcomes. Evaluation staff will plan and conduct studies annually to inform statewide progress in each of the five areas below. The focus will be on describing the extent to which key projected statewide RttT impacts occur and, where possible, understanding the factors that facilitate progress. At the end of the grant period, a final evaluation report will summarize studies conducted in the following areas:

1. ***Enhancing LEA Capacity in ARRA areas and Overall Progress toward Measurable Goals:*** Studies will examine relationships between the perceived utility of state support provided, the extent of LEA buy-in and implementation of initiatives (as described in

Sections B, C, D, and E), and the amount of progress made across all 115 LEAs toward the RttT Targets identified in Table 1 (Section A1) and Appendix 2;

2. ***Strengthening the Education Workforce***: Studies will describe data related to teacher and principal preparation, induction, working conditions, retention, and evaluation at both the LEA and State levels;

3. ***Improving the Lowest-Achieving Schools and Districts***: Studies will describe the achievement gains for all schools statewide that scored below the 50% composite performance level either at the start of the grant period or during that period;

4. ***Reducing Inequities Between High- and Low-Poverty LEAs (and Schools within LEAs):*** Studies will examine the relationship between policies and strategies used and progress made in alleviating the inequitable distribution of resources across LEAs, as well as within LEAs (such as distribution of effective teachers and leaders, distribution of shortage area teachers, *etc*.); and

5. ***Reducing the Achievement Gap:*** Studies will examine the extent of progress toward RttT targets (NAEP achievement in math and reading, high school graduation rates, college readiness/remediation, college enrollment) by subgroups of students (*e.g*., African-American, Hispanic, low income), where significant progress by subgroups is occurring, and what strategies are in place in those locations.

Appendix 7 contains more details about our planned approach to evaluation, as well as matrices that provide evaluation questions, quantitative and qualitative data sources, and timelines for evaluation of each major RttT initiative, as well as for the plan as a whole.

A.2.i.b. Supporting Participating LEAs

The NC Department of Public Instruction (NCDPI) maintains an extensive array of communications and support mechanisms that will be called upon to help LEAs to implement successfully the State's RttT plans. In addition, NC will develop a centralized PK-12 Education Technology Cloud infrastructure to provide access for all LEAs to the resources and tools necessary to support the reform agenda. NCDPI will build on existing State Board and Department strategic planning and budget allotment processes to plan jointly with LEAs and then hold them accountable for progress and performance on RttT initiatives.

NCDPI Statewide System of Support

As noted above, NCDPI has a long history of providing foundational support to all NC LEAs. In 2008, NCDPI redesigned its framework for providing comprehensive support services to better coordinate the intensive help needed in the lowest-capacity, lowest-achieving schools and districts. The resultant Statewide System of Support employs a regional model that works to coordinate all NCDPI services provided to a given district, school, region, or "affinity group" (such as large urban districts or high-poverty rural districts). NCDPI staff with expertise in major program areas (such as testing and accountability, exceptional children's services, curriculum and instruction, technology, school planning, and instructional management) operate in the field, helping school districts and schools assess their needs, identify and implement relevant evidence-based effective practices, and monitor effectiveness. These program areas coordinate their efforts through a monthly central "agency roundtable," in which staff share plans, lessons learned, and input and requests from the field. In addition the NCDPI provides information to all LEAs through established, centralized communication vehicles.

Statewide Technology Infrastructure and Resources: The K-12 Education Technology Cloud

Effective use of information and communications technologies is central to the NC plan to improve PK-12 education. These technologies are being used to enhance classroom teaching and learning; extend the educational resources available to every student and teacher; provide extended virtual learning opportunities for students, teachers, and administrators; improve the use of data in decision making at all levels; increase communications within the school community; and help prepare students for the technological world in which they live.

This commitment to effective educational use of technology is reflected in the NC School Connectivity Initiative, which has connected all of our public school districts to the NC Research and Education Network in order to provide reliable, high-bandwidth connectivity. Other technology initiatives include a series of IMPACT projects funded by Title IID that have created technology-enhanced classrooms and provided related professional development throughout NC, with documented, positive results on student achievement (Osborne *et al*., 2006). More recently, the NC Learning Technology Initiative has supported, with public and private funding, LEAs in planning and implementing "one-to-one" initiatives in which every teacher and student is provided with a computer or handheld networked device, wireless access is provided throughout the schools, and teachers receive content-based professional development on using technology to enhance learning. Currently, 46 of the 115 LEAs in NC are planning, piloting, or implementing 1:1 initiatives.

While a robust and reliable technology infrastructure is essential for 21st century schools, the current system of district-based acquisition and support of the full technology infrastructure is neither cost-efficient nor sustainable in small LEAs with limited resources. The alternative, frequently called a "cloud computing" approach, involves moving technology resources to centralized servers and then rapidly delivering what is needed, when it is needed, to individual devices, ranging from desktop computers to smart phones. This state-of-the-art approach is used by technology leaders such as Amazon, Google, and IBM to provide Internet-based services and software.

To directly support the RttT initiatives statewide, we propose to develop the NC PK-12 Education Technology Cloud (Education Cloud) to provide a highly reliable, cost-effective, server-based infrastructure that will support PK-12 education statewide. This development will involve transitioning statewide from individual, LEA-hosted server infrastructures to this centralized, cloud-hosted infrastructure as a service. The primary objective of the NC Education Cloud is to provide a world-class technology infrastructure as a foundational component of the NC education enterprise, along with:

- Reduced overall cost, with a significant savings once the transition to the Education Cloud is complete;

- Decreased technical support staffing requirements at the LEA level;
- Equity of access to computing and storage resources;
- Efficient scaling according to aggregate NC PK-12 usage requirements;
- Consistently high availability, reliability, and performance;
- A common infrastructure platform to support emerging data systems;
- Ability to provide statewide access to core technology applications;
- Improved security; and
- Sustainable and predictable operational cost.

Figure 2 on the following page illustrates how the proposed NC PK-12 Education Technology Cloud brings together key statewide information technology components that are discussed in other sections of this proposal.

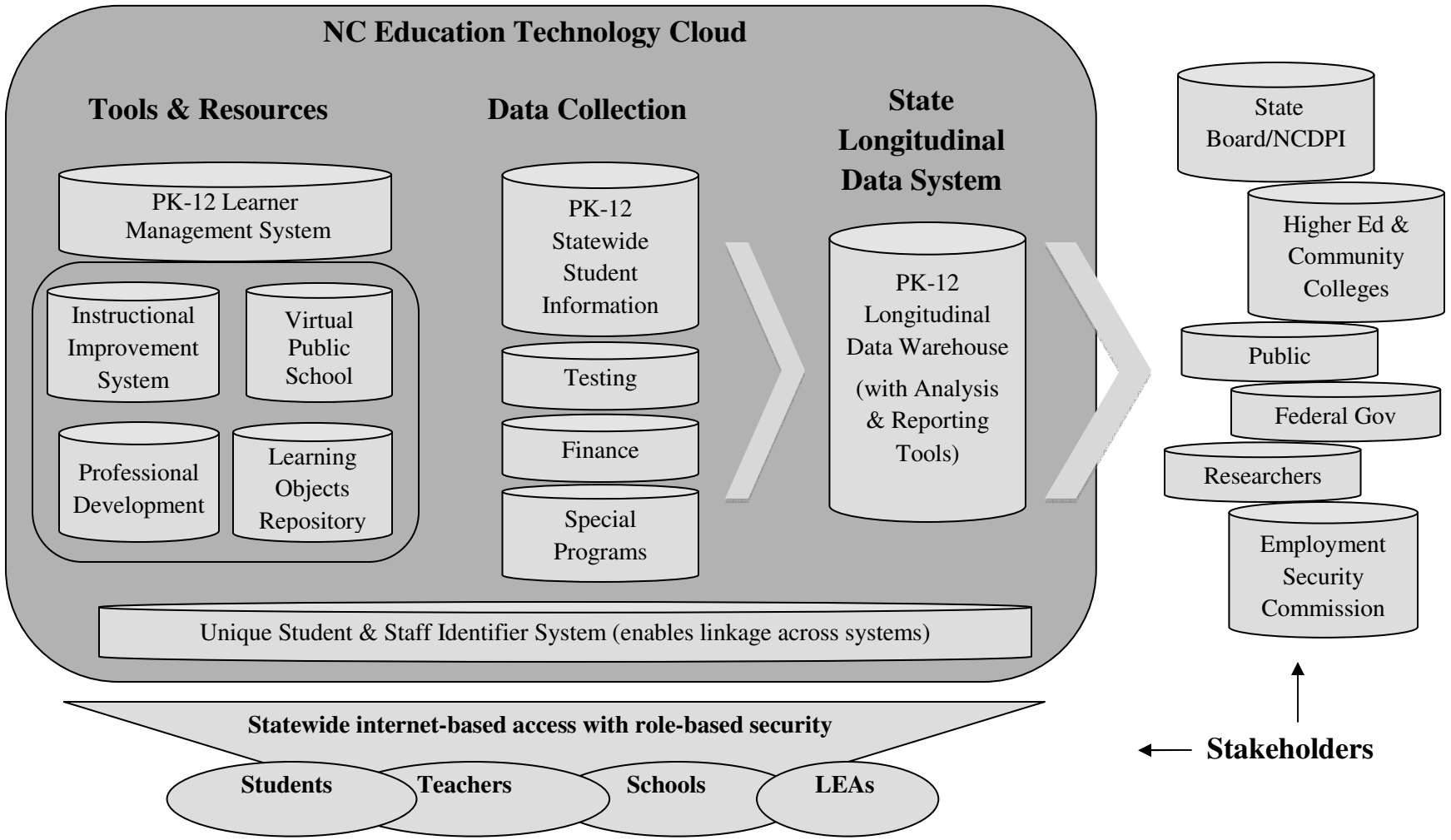


Figure 2: NC Education Technology Cloud

The K-12 Education Cloud strategy provides for coordinated procurement and support of server infrastructure and software platforms that support teaching and learning in NC public schools. NC is uniquely positioned to deploy Cloud services because the State has invested nearly $60 million in reliable, high-bandwidth connectivity to all NC schools since 2006. Once the transition to a K-12 Education Cloud is completed, during the RttT grant period, we expect that it will save districts an aggregate of $25 million per year and save NCDPI $5 million per year over current technology infrastructure costs, thereby providing sustainability of the technology infrastructure at a total cost savings.

The NC PK-12 Education Cloud will be used to deliver statewide access to the major digital resources and tools necessary to support RttT initiatives. For example, it will provide students and teachers with highly available and universally accessible Learning Management Systems offering the following functionality:

- Online courses for students and educators, and materials to support the integration of online resources into traditional courses;
- Web 2.0 tools, such as blogs, wikis, and social networking tools, in protected spaces appropriate for educational uses by students and teachers;
- Libraries of digital learning objects, such as educational videos that can be streamed into classrooms; and
- Online spaces for students and teachers to post and share their work, from text to video, and to engage in collaborative work.

Providing a common set of online resources and tools will ensure that every student and teacher has equitable access to technology resources. A focused set of digital tools and resources used across NC also will facilitate technical assistance; professional development; and the sharing of resources across classrooms, schools, and districts. More information about the plan for implementing these technology components in support of the RttT Initiatives is provided in the NC Education Cloud Feasibility Report located in Appendix 8; information about professional development and coaching for educators to help them access and utilize this and other technology tools is included in Section D5. The combination of the prior School Connectivity Initiative and the proposed NC PK-12 Education Cloud will provide an essential foundation for the each of the four main proposed RttT initiatives, as follows:

Standards and Assessments

In an effort to support LEAs further, NC is moving toward providing formative, diagnostic, and summative assessments online, making data collection and analysis more efficient, providing ready adaptations for students with special needs (*e.g.*, enlarged displays or text-to-speech conversion for visually impaired students), and opening the possibility of branched (computer adaptive) tests to provide more accurate measurement of each student's achievement (see Section C3).

Data Systems to Support Instruction

NC's State longitudinal data system (see Sections C1 and C2) depends upon a statewide technology infrastructure for data collection, analysis, reporting, and use by stakeholders. The broadband access provided by the School Connectivity Initiative has been essential in providing every school with access to these data systems. The RttT Instructional Improvement System (Section C3) requires a sophisticated database structure and online access to provide targeted, timely assessments to inform instructional decisions.

Great Teachers and Leaders

The NC technology infrastructure is essential for most of the teacher- and leader-focused initiatives. It provides: an online system for recording teacher and principal evaluations (see Section D2); technology to provide virtual courses for students when effective teachers are not available locally (Section D3); and extensive use of online workshops and webinars, virtual learning communities, virtual classroom observations, online coaching, and other uses of technology to extend and enhance both preservice preparation and professional development programs for teachers and administrators (see Sections D4 and D5).

Turning Around the Lowest-Achieving Schools

All of the uses of technology described above are essential to improving the lowest-achieving schools (see Section E2). In addition, it is essential that students in these schools have equitable access to technology and to teachers with the expertise to use it well, to guarantee that they experience the full range of technology uses that their peers in high-achieving schools receive.

Holding LEAs Accountable for Progress and Performance

Prior to allotting any NC RttT funding to LEAs, NCDPI will secure from each one a detailed scope of work that indicates specific implementation goals, objectives, measurable targets aligned with the State targets listed in Section A1, and activities that align with RttT initiatives and State Board goals. Using these work plans, NCDPI will monitor periodically each sub-grantees progress toward achievement of their stated goals. Some measures will be annual, relying (for example) on summative test score data; other measures will track achievement of concrete intermediate deliverables, such as completion of professional development or creation and dissemination of materials. NCDPI will support LEAs in meeting their targets through the various channels of the Statewide System of Support (as described above) and will work with the sub-grantees to adjust their initially approved plans when needed. LEAs that cannot demonstrate satisfactory progress toward the targets they set in alignment with the State targets, or who do not implement their plan with fidelity, will not receive RttT funding in the subsequent fiscal year.

A.2.i.c and d

NC has well-established systems for grant administration and oversight, budget reporting and monitoring, performance measure tracking and reporting, and fund disbursement. These systems will help NCDPI, in implementing the NC RttT initiatives, to leverage, coordinate, and enhance current state-, Federally-, and locally-funded initiatives that parallel or support the NC RttT initiatives.

A.2.i.c. Effective and Efficient Administrative Operations and Processes

NCDPI will ensure effective and efficient administrative operations and processes for implementing NC RttT by integrating these important support functions within the RttT Project Management Office. The NCDPI has well-established grant administration, budget reporting and monitoring, and fund disbursement infrastructures. NC also has been among the leading states nationally in submitting complete data to the USED EDEN/EdFacts system. These capabilities have enabled the NCDPI to develop quickly the allocation and reporting mechanisms required to meet the mandates of the State Fiscal Stabilization Fund and will provide a strong framework through which to meet the allocation, reporting, and monitoring requirements of RttT.

A.2.i.d. Leveraging Existing State, Federal, and Local Funds (See NC RttT Budget)

As noted throughout this proposal, NC already is engaged in a number of major initiatives that address the RttT reform areas and that will be accelerated and enhanced with RttT funding. During the past two years, the NCDPI has focused on better coordination, reallocation, and repurposing of State and Federal funds that support the agency through such large-scale reform initiatives as those noted above. In fact, the NCDPI redesigned its organization in 2008, with the assistance of the Boston Consulting Group, to better align its work with a renewed focus on providing service and infrastructure for the LEAs and schools in ways that are consistent with the four RttT assurance areas. In addition, the NCDPI has instituted version 2.0 of its Performance Navigator, a management tool used to ensure that their activities are focused on achieving the State Board's core objectives and that specific deliverables and progress are transparent to all stakeholders. NC RttT also will leverage the significant State and Federal funding that is administered to LEAs for their discretionary use.

State Funding

As described further in Section F1, NC provides approximately 69% ($7.5 billion in FY 2009-10) of all LEA revenue for current expenditures. In addition to providing the basic funds needed to deliver the NC Standard Course of Study (first established in 1898), the NC allotments include several large supplemental allotments that LEAs can use largely at their discretion to develop programs that meet the needs of their students. Such allotments include funds for the following special purposes:

- Exceptional children ($685 million in FY 2009-10),
- Disadvantaged students ($77 million),
- Students at-risk of academic failure ($228.5 million),
- Students in low-wealth leas ($209.6 million),
- Students in small leas ($45.7 million),
- Career and technical education ($393.6 million), and
- Students with limited English proficiency ($77.6 million).

Combining these together with discretionary local dollars and Federal funds, many of which come in supplemental allotment categories similar to their NC counterparts, gives LEAs tremendous flexibility, allowing them to create the right mix of programs to meet the needs of their students and teachers. When implementing the NC RttT initiatives, NC will work with each LEA to find the best way to blend short-term RttT funding with existing recurring funding to achieve NC and LEA objectives, with a particular focus on developing long-term LEA capacity for sustaining professional growth and student achievement.

Federal Funding

The following major Federal grants align with and support the RttT goals, as do many smaller grants from the U.S. Department of Education and the National Science Foundation to universities and non-profit organizations in NC:

Table 3: Other Federal Grant Funds

Federal Grant Program	Annual Funding to NC
School Improvement Grant	$14,003,925
Carl Perkins Act	$35,752,471
IDEA	$324,688,845
Title I	$371,117,544
Title II	$66,185,445

A.2.i.e. Planning to Sustain Initiatives

The NC RttT plan focuses primarily on building capacity and establishing practices that are more cost-efficient. Some of the sustainability of the NC RttT agenda therefore will come from reduced costs. Since the State's legislature and extensive network of business and grantmaking supporters historically have provided funding for education innovation, particularly those initiatives that have demonstrated effectiveness, the State will also be able to secure redeployed and possibly limited additional funding to help extend its reform efforts beyond the original RttT grant period.

In the current NC fiscal climate, RttT funding will provide a critical boost that will enable NC to maintain momentum, accelerate, and deepen or broaden key education reforms. The current economic climate naturally raises concerns about sustaining the RttT-supported reforms after the grant period. While sustainment will be a challenge, we are already planning ways to address the issue in the following ways:

- RttT funds largely will be allocated to capacity-building activities, such as strengthening the education workforce, building a more effective professional development system, implementing a next-generation technology infrastructure for PK-12 schools, and increasing the internal and long-term capacities of districts to support school improvement. The ongoing cost to sustain these capacities will be less than the initial investments required to establish them. In addition, NC and the LEAs will have collaborated during the grant period to find the most efficient ways to blend existing, ongoing NC, local, and Federal funding to meet ongoing programmatic needs. Finally, the governor's *Ready, Set, Go!* plan requires the State Board and the State's education agencies to focus funding and program priorities to support the plan.
- Through the NC RttT initiatives and related fiscal and policy analyses, we anticipate identifying cost efficiencies and opportunities for reallocating existing NC and Federal funding. For example: successful RttT initiatives will reduce the remedial education costs at both the high school and college levels; technological advances will enable efficiencies in the use of digital resources in place of textbooks and paper tests; and virtual learning for students and teachers can provide cost efficiencies. Initial estimates show that the NC PK-12 Education Cloud Initiative (see Section A.2.i.b) will reduce technology infrastructure costs by $10 to $15 million annually statewide. The cost savings of increasing teacher retention rates also have been well documented (Rieman *et al.*, 2007). A close examination of cost-effectiveness and potential savings will be included in the RttT evaluation and policy analyses.
- The planned comprehensive NC RttT evaluation will enable NC to document proven models for improving the lowest-achieving schools, increasing student achievement and the graduation rate, reducing achievement gaps, and strengthening the education workforce. NC has a long history of providing strong state support for public education, even in difficult economic times (see Section F1), and we are confident that, as the economy improves, the General Assembly will support innovations that have proven successful. By including plans to evaluate thoroughly each NC RttT initiative and demonstrate effective use of all available ongoing funds, we will be able to provide NC policymakers with the evidence they will need to make informed decisions about investing additional NC and local funding to sustain these models.

- NC business leaders recognize that successful education is cost-effective. Dr. Jim Goodnight, CEO of Cary, NC's SAS Institute, Inc. and a leading business proponent for updating and improving education in NC, describes the dropout rate and failure to educate many children as the "clear and present danger" of our time. He emphasizes the high societal and economic costs of failing to prepare young people to succeed in the modern workplace and to be productive members of society. We will leverage the support of the NC business community in sustaining RttT initiatives proven to be successful. The NC Network of Grantmakers, representing more than 80 private and corporate philanthropic foundations, also supported the development of this proposal and already is engaged in considering funding programs that will extend and sustain related initiatives.
- The NC JOBS (Joining Our Businesses and Schools) Commission, convened by NC Lieutenant Governor Walter Dalton, will make recommendations to the State Board and the General Assembly this year about how the work of the state's Early College High Schools (described in Section E2) can be more closely aligned to the economic development needs of the regions they serve. The Commission also has focused on enhancing STEM education. Its recommendations will be used to strengthen the NC RttT work (also described in Section E2).
- The newly-emerging NC STEM (Science, Technology, Engineering and Mathematics) Ventures Model, building upon the work on the Bill & Melinda Gates Foundation-funded NC STEM Community Collaborative, is developing a public-private approach to venture philanthropy to support innovation in education. The approach is designed to leverage public/private investment effectively, incentivize local sustainability, and increase accountability and human capital support of innovative education initiatives. If successful, this approach will further support sustaining RttT initiatives that are effective.
- As a result of the highly collaborative process that NC has employed in the development of the NC RttT proposal, the vision enjoys meaningful support from NC's key decision-makers. The project governance and management structure described above are designed to maintain collaboration and consensus-building during implementation, thereby extending the base of support for continued funding of successful RttT initiatives.

A.2.ii. Broad Stakeholder Support

Throughout the NC RttT development process, NC has benefited from unanimous support and ongoing participation from all constituencies.

NC has a strong track record of collaboration across all stakeholder groups to improve the education of its children, and this broad support continues for the NC RttT proposal. Governor Perdue, State Board of Education Chair William Harrison, State Superintendent June Atkinson, and Special Advisor to the Governor for Education and Innovation Myra Best have led the NC RttT stakeholder engagement activities that have resulted in letters of support from professional associations, legislative leaders, business leaders, civil rights leaders, local foundations, and community-based organizations. The NC Association of Educators, NC Association of School Administrators, NC School Boards Association, and NC Parent-Teacher Association have been actively involved in the NC RttT proposal development process, and representatives of these organizations will serve on the Governor's PK-12 Education Reform Commission. The teacher, principal, superintendent, and local board advisors to the State Board all have played key roles in the RttT stakeholder outreach effort, and the agreement of all 115 LEAs, and all NC professional education associations to participate in the NC RttT plan reflects the open process for developing this proposal that began during the summer of 2009. As a result of this broad support and involvement, the NC RttT plan meshes well with other existing and planned NC education improvement efforts. Table 4 lists the letters of support from government, business, and academic leaders; education associations, and other stakeholders; the full set of letters is provided in Appendix 9.

Table 4: Letters of Support for NC RttT

	Signees	Title
Associations		
American Federation of Teachers/North Carolina (AFT/NC)	Dianne Jackson	President
North Carolina Association of Educators (NCAE)	Sheri Strickland	President
North Carolina Association of School Administrators (NCASA)	Larry E. Price Bill McNeal	President Executive Director
North Carolina Association of Teacher Assistants (NCATA)	Judy Barnes	President
North Carolina Community College System (NCCCS)	Scott Ralls	President
North Carolina Independent Colleges and Universities	Hope Williams	President
North Carolina PTA (NCPTA)	Kyle R Robertson	President
North Carolina Principals' & Assistant Principals' Association (NCPAPA)	Shirley Prince	Executive Director
North Carolina School Boards Association (NCSBA)	Edwin Dunlap, Jr,	Executive Director
Charter Schools Participating in Title I		
Francine Delany New School for Children	Buffy Fowler	Operations Coordinator
Forsyth Academy	Derrick Boone, Sr. Lori W. Hill	Board President Principal
Greensboro Academy	Rudy Binder Rudy Swofford	Board President Principal
PreEminent Charter School	Paulette Jones Leaven Michael Stack	Board President Principal
Queen's Grant Community School	Ted H. Biggers, Jr. Christy L. Morrin	Board President Principal
Research Triangle Charter Academy	Elizabeth Gnatek-Morey Terri L. Gullick	Board President Principal
Quality Education Academy	Simon S. Johnson	Chief Executive Officer
Clover Garden School	David Pugh	Director
Healthy Start Academy	James T. McCormick	Principal
Children's Village Academy	Lavinia Hall	Finance Officer
Gaston College Preparatory/KIPP Pride High	Susan Goertemiller	Administrator
Governmental Agencies		
North Carolina Lieutenant Governor's Office	Walter Dalton	Lieutenant Governor
North Carolina Senate	Marc Basnight	President Pro Tem
North Carolina House of Representatives	Joe Hackney	Speaker of the House

	Signees	Title
North Carolina Superior Court	Howard E. Manning	Judge, *Leandro* Case Custodian
North Carolina Chief Justice (*Retired*)	Burley Mitchell	Former Chief Justice; Chair, NC New Schools Project
Academia		
Duke University Medical Center & Health System (DUMC)	Victor J. Dzau, M.D.	Chancellor President and Chief Executive Officer
The University of North Carolina System	Erskine B. Bowles	President
Foundations/Non-Profit Organizations		
The Golden LEAF Foundation	Dan Gerlach Mark Sorrells	President Senior Vice President
James B. Hunt, Jr. Institute for Educational Leadership and Policy	James B. Hunt, Jr.	Foundation Chair; Chair, Institute for Emerging Issues; Former Governor 1977-1985 and 1993-2001
Businesses		
AT&T North Carolina	Cynthia Marshall	President
North Carolina Chamber of Commerce	Lewis Ebert	President and CEO
SAS Institute, Inc.	Jim Goodnight	Founder & President
Partnering Organizations		
Teach for America	Erin Oschwald Tim Hurley	NC Director, Northeast Region NC Director, Charlotte-Mecklenburg Region
New York City Leadership Academy	Pamela S. Ferner	Executive Vice-President
Educators		
Regional and State Teachers of the Year and Milken Educators	Cindi Rigsbee Jessica Garner Martha Anderson Paige Elliott Nicole Murray Trisha Muse Ruth Ann Parker Renee Peoples Janice Raper Sonya Rinehart Robert Turner Bernard Waugh Bryan Holley Cynthia Rudolph	08-09 North Carolina Teacher of the Year 09-10 North Carolina Teacher of the Year 09-10 Sandhills/S. Central Region Teacher of the Year 08-09 North Central Region Teacher of the Year 09-10 Southeast Regional Teacher of the Year 08-09 Sandhills/S. Central Region Teacher of the Year 08-09 Southeast Region Teacher of the Year 08-09 West Region Teacher of the Year 08-09 Northwest Region Teacher of the Year 08-09 Northeast Region Teacher of the Year 09-10 Northwest Region Teacher of the Year 08-09 Southwest Region Teacher of the Year 2008 Milken Educator 2009 Milken Educator

(A)(3) Demonstrating significant progress in raising achievement and closing gaps *(30 points)*

The extent to which the State has demonstrated its ability to—

(i) Make progress over the past several years in each of the four education reform areas, and used its ARRA and other Federal and State funding to pursue such reforms; *(5 points)*

(ii) Improve student outcomes overall and by student subgroup since at least 2003, and explain the connections between the data and the actions that have contributed to — *(25 points)*

(a) Increasing student achievement in reading/language arts and mathematics, both on the NAEP and on the assessments required under the ESEA;

(b) Decreasing achievement gaps between subgroups in reading/language arts and mathematics, both on the NAEP and on the assessments required under the ESEA; and

(c) Increasing high school graduation rates.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (A)(3)(ii):

- NAEP and ESEA results since at least 2003. Include in the Appendix all the data requested in the criterion as a resource for peer reviewers for each year in which a test was given or data was collected. Note that this data will be used for reference only and can be in raw format. In the narrative, provide the analysis of this data and any tables or graphs that best support the narrative.

Recommended maximum response length: Six pages

A.3. Demonstrating significant progress in raising achievement and closing gaps

A.3.i. Progress over the past several years in each of the four education reform areas

NC has been deeply engaged in each of the ARRA reform areas, as exemplified by the following recent and ongoing major State Board initiatives:

- Developing revised statewide essential standards and aligned assessments,
- Enhancing the statewide longitudinal data system,
- Creating and implementing statewide comprehensive teacher and principal evaluations, and
- Reforming and expanding the State's flagship program for transforming the lowest-achieving districts and schools.

NC's education goals, as described in Section A1, are consistent with the RttT reform areas, and NC long has been actively engaged in education reforms that are aligned with the RttT reform areas and criteria. In addition, NC has shown strong gains in student outcomes overall and within each student subgroup. We recognize, however, that NC still has many challenges to meet in providing effective education for all students and in closing the achievement gaps across student groups. NC RttT plans are designed to help us address those challenges. The major ongoing NC initiatives related to the RttT reform areas are described below, followed by a summary of the data on improvements in student outcomes.

Adopting Rigorous and Forward-Looking Standards and Assessments

In 2007, the State Board of Education convened a Blue Ribbon Commission on Testing and Accountability to review NC's assessments and accountability system. This group's work galvanized the State Board of Education to revise NC's standards, assessments, and accountability. The NC Department of Public Instruction (NCDPI) developed an ambitious plan to respond to the Commission's 27 recommendations and to create an integrated system of essential standards, coordinated assessments, and new-generation accountability for schools and districts. This two-phase initiative, the Accountability and Curriculum Reform Effort, began in the fall of 2008 and will be fully implemented by the fall of 2012. NC has further demonstrated commitment to improving the quality of its standards by joining the Common Core State Standards Initiative, as described further in Section B1. NC is currently engaged in a comprehensive review and revision of the *PK-12 Standard Course of Study* that will align NC standards in all content

areas with the goals of the Common Core Initiative, thereby establishing fewer, clearer, and higher standards that are aligned with college and workforce expectations and that are benchmarked against high-performing nations.

Data Systems to Support Instruction

NC continues to be a leader in the development and implementation of comprehensive data systems designed to improve instruction. The NC Window of Information on Student Education (NCWISE) system provides a statewide, web-based, centrally maintained system for capturing, accessing, and reporting a wide spectrum of student information. First introduced in 2004, NCWISE is now in use by all LEAs and charter schools in NC. The Common Education Data Analysis & Reporting System (CEDARS) is a longitudinal data system that, when completed later this year, will enable ready access to data about PK-12 students, staff, programs, and finances that allow educators, researchers, and policymakers to analyze trends and relationships among various educational factors and student performance over time. CEDARS is part of NC's Data Quality Initiative, the primary focus of which is to assess and improve the overall quality of agency data prior to making those data available for external use. In addition, while NC's Statewide Longitudinal Data System already meets all twelve elements described in the America COMPETES Act (see Section C1), NC is exploring ways to enhance functionality and automate connections between PK-12, university, community college, independent colleges, and workforce systems.

Supported by a direct appropriation from the NC General Assembly, NC has partnered with SAS Institute, Inc. to make its Educational Value-Added Assessment System (EVAAS) available to all public schools in the State (see Section C2). We have used Federal IDEA resources to develop and implement a statewide Comprehensive Exceptional Children Accountability System (CECAS) that supplies LEAs with tools to manage children's individual education plans. In addition, Federal funds were also used to help develop the Career and Technical Education (CTE) Instructional Management system, which allows detailed analysis of performance from the state to the classroom level.

Great Teachers and Leaders

NC has demonstrated a broad commitment to improving student achievement by strengthening the NC educator workforce, as evidenced by a broad array of initiatives ranging from incentives for college students who commit to teach in NC, to professional development for all teachers, to support for teachers who pursue National Board certification. Major initiatives include the following:

- ***NC Teaching Fellows and Principal Fellows Programs.*** The Fellows programs provide scholarships to outstanding NC high school seniors who agree to teach for four years in NC following graduation from college, as well as to aspiring administrators. Fellows are employed in all of NC's 100 counties. The NC Association of Educators also sponsors a structured and rigorous experience, the Teacher Cadet program, which encourages rising high school seniors to consider teaching as a career.
- ***NC Educator Evaluation System.*** The new, student achievement and teacher development-oriented NC Educator Evaluation System aligns with multiple State-level goals and values, reflecting the complexity of education in the 21st century by emphasizing the roles of leadership, teamwork and collaboration, higher-order thinking, authentic assessment, and technology-infused learning. More details about the NC Educator Evaluation System can be found in Section D2.
- ***UNC System Teacher Preparation Program Revisions.*** Teacher Preparation Programs at every UNC System school recently completed a review process to align their programs with not only NC's new standards for teacher education programs, but also the NC Educator Evaluation System. In addition, UNC established teacher production targets in high-need areas such as mathematics, science, and special education.
- ***Teach for America.*** North Carolina currently has 395 Teach for America teachers working in high need schools in the rural northeast counties and in the Durham and Charlotte urban districts.
- ***Professional Development.*** State-supported professional development opportunities include content and pedagogical opportunities offered by a host of providers such as: the NC Teacher Academy, NC Center for the Advancement of Teaching, and the online LEARN NC programs, which have reached thousands of teachers; the NC Mathematics and Science Education Network, the NC State University Science House, and the Kenan Fellows Program, which specialize in professional development in the STEM

content areas; and the NC New Schools Project, All Kinds of Minds, and the Hill Center, which provide targeted assistance for a variety of teaching and learning circumstances. More detail regarding how the State will leverage these resources as part of a comprehensive professional development initiative is provided in Section D5.

- ***Teacher Working Conditions (TWC) Survey*.** Administered biennially since 2002 and completed by nearly 90% of NC's educators, the TWC survey informs school improvement and the implementation of statewide teacher, principal, and superintendent standards and assessment processes. A new Student Learning Conditions Survey has been developed and validated to provide another data set to inform school improvement. NC was the first state to conduct such comprehensive surveys to gauge working and learning conditions in schools.
- ***Educator Incentives*.** NC supports multiple incentive programs tied to improvement of student achievement, including:
  1. Support to teachers who seek advanced certification through the National Board for Professional Teaching Standards (NC is has the largest number of National Board certified teachers in the nation; more than 10% of all teachers in the state are National Board Certified Teachers and receive a 12% salary supplement);
  2. Financial incentives for staff in schools that meet or exceed expected student achievement growth via the ABCs Program, which has been in place since 1996 (described in greater detail in Section D2); and
  3. A number of USED-funded Teacher Incentive Fund programs that collectively reach nearly one-quarter of all teachers in NC. Current program components include incentives for student performance, leadership, relocation to hard-to-staff schools, and other measures.

Federal, state, local, and private foundation grant funds are used to support the wide range of teacher and principal initiatives in NC. These funds include a $66 million Teacher Quality Grant, Troops to Teachers program funding, IDEA funds, and state funding, along with funding from the Gates Foundation, Burroughs Wellcome Foundation, Golden LEAF foundation, and others for many of the programs listed above.

Turning Around the Lowest-Achieving Schools

NCDPI houses a District and School Transformation (Transformation) Division, created to provide support for all NC schools and districts to increase student achievement and reduce dropouts. Overall, student performance in Transformation Division-assisted schools and districts has increased dramatically, *e.g.*, almost half of the 66 participating high schools have already improved rapidly enough to exit "turnaround status." The Transformation Division is funded by coordinated use of State and Federal ARRA and ESEA funding. More details of NC's turnaround efforts and successes are provided in Section E2.

A.3.ii. Improving Student Outcomes Overall and by Student Subgroup

A.3.ii.a. Increasing student achievement in reading/language arts and mathematics, on both the NAEP and the assessments required under the ESEA

NC students have shown steady progress in mathematics for many years, moving from well below to above the national average. Reading achievement in NC, however, has not shown the same improvement, though it hovers very close to the national average. Since NC has revised its standards and assessments to make them more rigorous, state ESEA tests are not reliable indicators of long-term patterns of change, but recent data show some evidence of increased student achievement. (See Appendix 10 for detailed achievement data.)

NC National Assessment of Educational Progress (NAEP) math score trends demonstrate consistent progress, with NC's average scores on the grade 4 and 8 tests moving from below the national average in the early 1990s to consistently above the national average, which also has be rising, since 2000 (see Figure 3). The average score reflects a steady increase in the numbers of NC students who score at the advanced level (growing from 1% to 8% at grade 4 and 1% to 9% at grade 8) and at or above the proficient level (13% to 43% at grade 4 and 9% to 36% at grade 8) during the time period shown in Figure 3.These gains can be attributed to multiple factors, including higher standards and more rigorous assessments, a focus on recruiting and preparing mathematics teachers, increased attention to mathematics in the elementary grades, and the strong NC focus on STEM education (see Section P2).

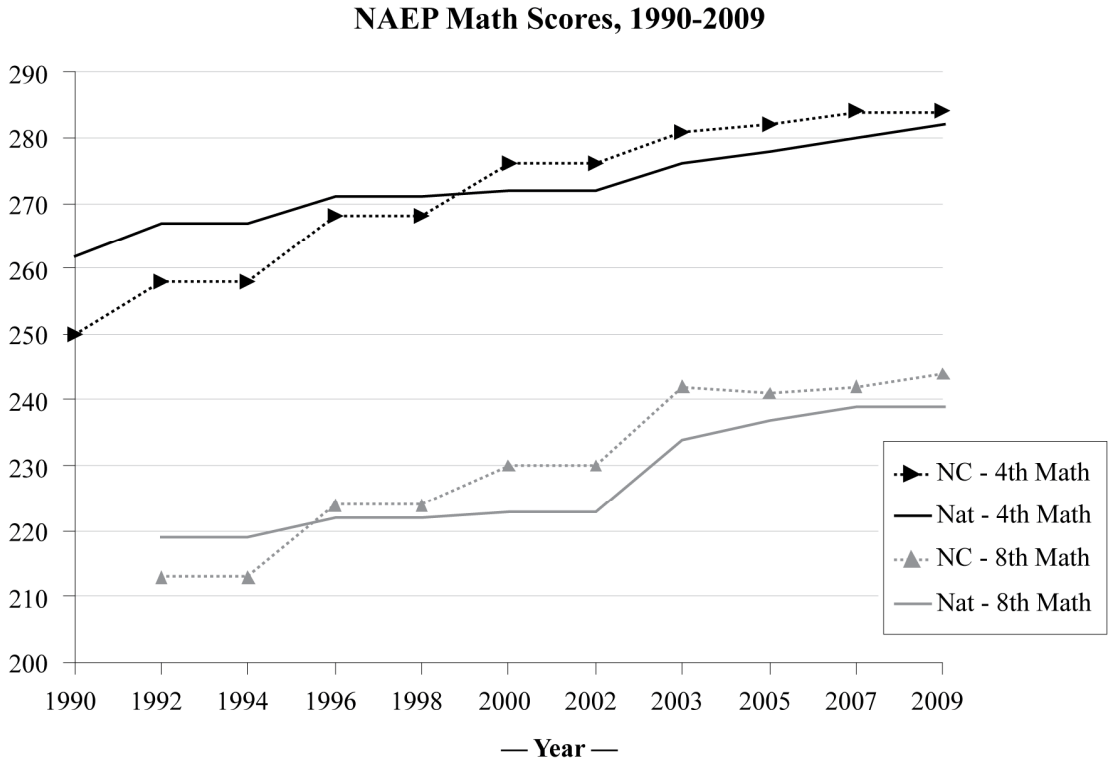


Figure 3: NAEP Math Scores, NC and Nation

Unfortunately, NC students have not shown the same level of progress in their NAEP reading scores, which in most years have closely tracked the national average, which also has shown little growth, at both grades 4 and 8 (Figure 4). The NAEP reading data are disappointing, both in NC and at the national level, since many efforts – such as the national Reading First program and statewide Literacy Coaches in NC – have been targeted at improving reading achievement, with no discernible impact on NAEP scores.

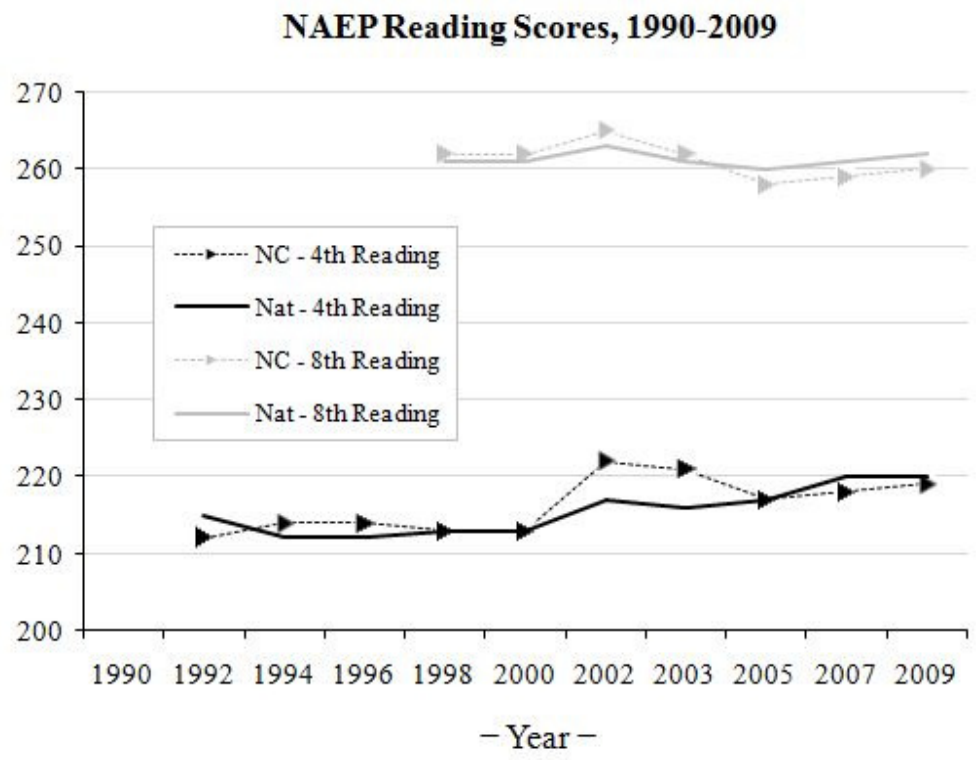


Figure 4: NAEP Reading Scores, NC and Nation

Preliminary indicators of the renewed progress NC expects to make in these areas are recent trends on the State's end-of-grade tests, which have been consistently positive since the implementation of more rigorous standards and assessments in both mathematics (2005-06) and reading (2007-08). The recent changes in assessments limit our ability to make comparisons across many prior years,

but the data show that (a) the new assessments are clearly more challenging than the prior ones; and (b) performance is improving during the one year and three years, respectively, that the new reading and math assessments have been in place (Figure 5).

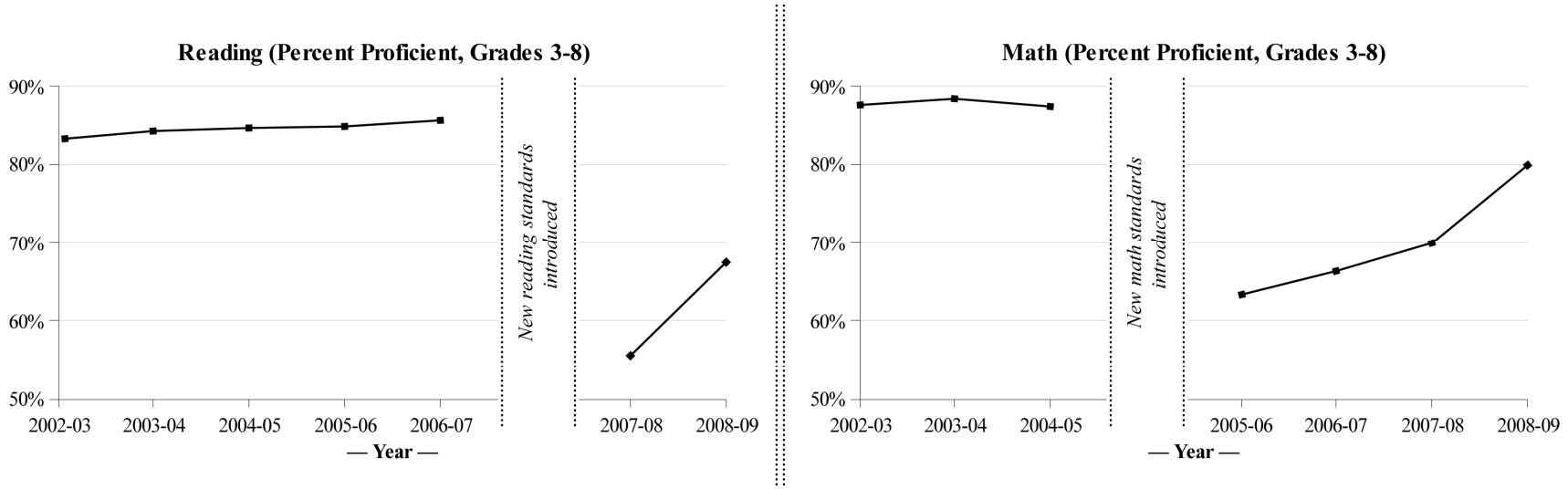


Figure 5: Rapid Responses to Increases in Rigor of NC Math and Reading Standards

On the SAT exams, NC students have exhibited steady gains for many years, reducing the gap between the state's overall scores and the national average from 30 points in 1999 to only 10 points in 2009. Though NC scores have remained steady since 2005, they have not dropped as precipitously as have the national figures (Figure 6). As expected from the NAEP data, NC shows a significant increase in SAT math scores, with the NC average increasing from 493 to 511 in the past decade (1999-2009), while the national average showed a much smaller gain from 511 to 515. These gains are encouraging, since during this time period both the number and diversity of SAT test-takers in the state increased beyond national averages (Public School Forum of NC, 2009). As with the NAEP data, SAT reading scores do not show progress in either NC (moving from 493 to 495 during 1999-2009) or in the nation overall (moving down from 505 to 501 during the same time period).

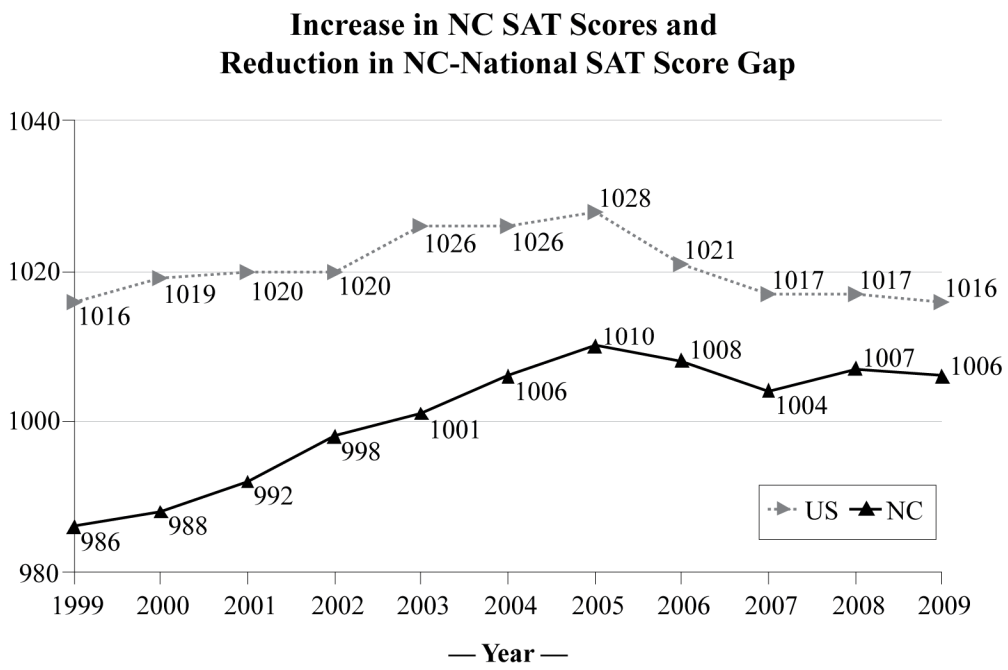


Figure 6: Increase in NC SAT Scores and Reduction in NC-National SAT Score Gap

Further evidence of the positive trend in mathematics is the NC Advanced Placement Exam and STEM SAT data. More than 1 in 6 NC high school graduates (17.3%) earned a 3 or higher on at least one AP exam in 2008 (compared to a national average of about 15%), and NC students outperform the nation on many STEM SAT subject tests, as shown in Table 5.

Table 5: Average Subject Test Scores in STEM Subjects, NC and US

SUBJECT AREA	NC MEAN SCORE	NATIONAL MEAN SCORE	DIFFERENCE (NC v. US)
Math Level 1	597	590	**+7**
Math Level 2	681	636	**+45**
Biology-E	629	596	**+33**
Biology-M	669	643	**+26**
Chemistry	658	625	**+33**
Physics	685	641	**+44**

The message from the NC data is clear: We need to continue to accelerate the achievement gains of our students in mathematics, and we need much more effective efforts to improve their reading achievement. Both of these needs are addressed throughout our RttT plan.

A.3.ii.b. Decreasing achievement gaps between subgroups in reading/language arts and mathematics, on both the NAEP and the assessments required under the ESEA

NC continues to exhibit substantial achievement gaps, and most prior efforts have not succeeding in reducing them. Several recent initiatives have shown positive results, however, and are being spread throughout the State. The RttT teacher and principal initiatives (Section D2 through D4) and the school turnaround efforts (Section E2) will contribute significantly to closing NC's achievement gaps.

The NC data on achievement gaps among subgroups of students is extremely disappointing. On both NAEP and statewide assessments, the achievement gaps for black and Hispanic students, as compared to white students, are large in both reading and mathematics and have not shown significant improvement over the past decade. Low-income students also show a large and

unchanging achievement gap when compared to other students. English Language-Learning students and students with disabilities also continue to lag behind their peers in achievement. More detailed NAEP data are provided in Appendix 10, but the message is crystal clear: We need to develop and support far more effective approaches to closing achievement gaps among groups of student in NC.

Fortunately, NC has several relatively new programs that are showing a positive impact on achievement gaps and that will be taken to scale through RttT and State funds. One promising example is the Early College High Schools, designed to provide better options for at-risk students (described in more detail in Section E2). A Federally-funded randomized-control study of NC's Early Colleges shows that the model has eliminated the white/minority course-taking gap in Algebra I. By the end of grade 9, 75.5% of underrepresented minority students and 74.8% of white students in the Early Colleges had successfully completed Algebra I, compared to 54.9% of underrepresented minority students and 61.2% of white students in a control group (Edmunds *et al*., 2010). Our RttT proposal includes an initiative to further extend the types of opportunities offered by these schools (see Section E2).

In addition, the State has begun to see reductions in achievement gaps as a result of programs targeted at specific student sub-groups, such as English Language Learners, students with disabilities, and preschool students identified as being at risk, with special emphases placed on narrowing gaps in reading and math for these groups.

Special Education

North Carolina has worked to eliminate achievement gaps for students with disabilities through its Federally-funded State Improvement Projects (SIP I, 2000-2005; SIP II, 2005-2010; SIP III, pending). SIPs are not yet in operation in every LEA, but in the LEAs where they have been implemented, encouraging results suggest that the gap is indeed closing, and that NC's ongoing effort to bring this reliable model to scale statewide is a promising solution to addressing the achievement gap for this group of students.

Performance by students with disabilities on State End-of-Grade reading tests in each of the past three school years indicate that students with disabilities who are served in schools in which SIP has been implemented consistently outperform their peers in other

schools. Even in a year when State reading standards changed and all scores temporarily dropped (2006-07), students with disabilities in SIP schools experienced a less severe drop than both non-SIP students with disabilities and students without disabilities. Performance improvements for students with disabilities served by SIP schools followed similar trends in math (Table 6).

Table 6. Closing the Gap for Students with Disabilities through SIP

Improvement in Proportion Performing At or Above Grade Level: Reading

	2005-06 to 2006-07	2006-07 to 2007-08*	2007-08 to 2008-09
Students in SIP Schools	**+11**	-15	**+15**
Non-SIP Students with Disabilities	+2	-31	+11
All Other Students	+1	-30	+12

Improvement in Proportion Performing At or Above Grade Level: Math

	2005-06 to 2006-07	2006-07 to 2007-08	2007-08 to 2008-09
Students in SIP Schools	**+13**	**+28**	**+18**
Non-SIP Students with Disabilities	+4	+2	+12
All Other Students	+3	+4	+10

*State reading standards changed between 2006-07 and 2007-08, which led to temporary drops in scores on state-administered tests for all students.

English Language Learners

North Carolina is addressing achievement gaps for English Language Learners in several new ways. In addition to statewide *English as a Second Language* programs, 16 LEAs now have dual-language emersion programs in seven different languages. In addition, nearly 1,000 educators have been trained in the Sheltered Instruction Observation Protocol (SIOP), a program in which ESL and English teachers work side-by-side to simultaneously adapt grade-level content and encourage English language development.

Positive signs are emerging in LEAs that have introduced these reform programs. For example, in a study of the first six LEAs to adopt the Dual-Language approach, students who transitioned out of ELL status score similarly to their non-ELL language minority and Native English speaking peers on 3rd through 8th grade EOG reading tests. Current ELL students who have not yet exited ELL

status perform well below before completing the program. Overall, ELL students served by the Dual Language program out-perform non-Dual Language ELL students in other LEAs consistently across all EOG grades (Figure 7).

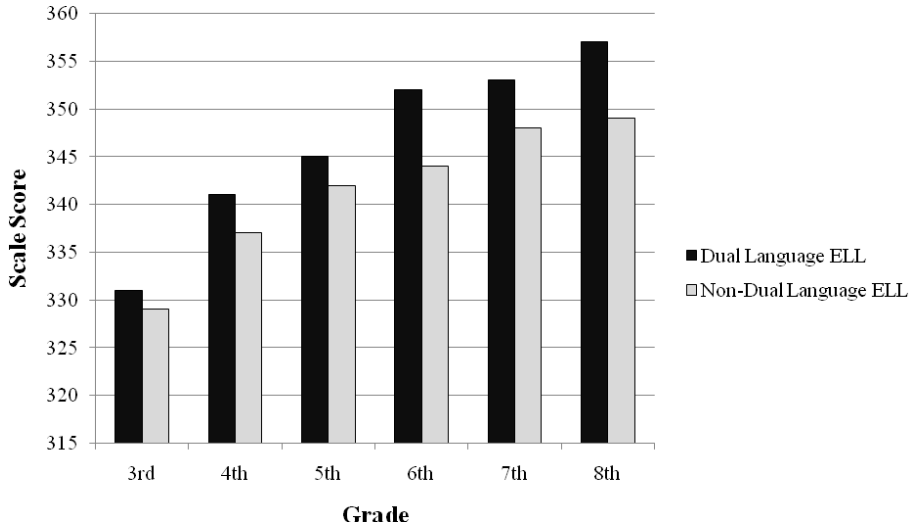


Figure 7: ELL Student Performance, NC End-of-Grade Reading

Pre-School Students At Risk of Future Academic Failure

Over the past decade, NC has expanded already-significant investments in statewide early childhood education programs in an effort to address potential gaps at the earliest possible age. Evaluations of NC's More at Four Pre-kindergarten Program (which serves four year-olds at risk of academic failure; see Section F3) have examined children's outcomes across all domains of learning related to school readiness (including language and literacy skills). For each cohort, these evaluations consistently have found that children who participate in More at Four exhibit significant growth throughout the pre-k and kindergarten years in these domains – with progression at an even greater rate than would be expected for normal developmental growth. These growth trajectories continue – and in some cases accelerate – as children enter school. The results suggest further that not only does participation in More at Four have a positive

impact on children's language and literacy development during pre-k, but that the foundational skills they achieve in pre-k help prepare them to develop more advanced reading skills in kindergarten and beyond. One recent analysis of grade 3 End-of-Grade reading test scores, comparing children served in More at Four to similar children not served in the program, found that More at Four participants scored significantly higher in reading at grade 3 than those who did not participate in the program (Peisner-Feinberg and Schaaf, 2008). Furthermore, the evaluation findings indicate that children at the greatest risk (those with greater cumulative risk or lower levels of English proficiency) benefit the most from More at Four.

Going Forward

NC will apply for another SIP grant (2010-2015; SIP III), but even if unsuccessful, the State is committed to continuing to scale up efforts to reach all LEAs. Also, the State plans to continue to scale up successful ELL programs such as SIOP, training for which is on schedule to be offered to all LEAs during Phase II of its rollout. Finally, the State is already expanding upon the success of More at Four by creating an Office of Early Learning focused on alignment of standards, assessment, and professional development programs for PK-grade 3; and by partnering with UNC-Chapel Hill's Frank Porter Graham Child Development Institute and the Kellogg Foundation on a groundbreaking FirstSchool (PK-grade 3) initiative. These efforts will be coordinated with the RttT initiatives for preparing teachers and principals and for turning around the lowest-achieving schools (described in Sections D and E2).

A.3.ii.c. Increasing high school graduation rates

Graduation rates continue to climb in NC, and in many cases, improvements in rates for minorities have outpaced improvements among white students. With the help of RttT funding, the state will be able to dedicate additional resources to accelerating improvements in graduation rates, particularly for African-American students and for English Language-Learning students, the fastest-growing population in the state.

Perhaps the most telling results of the many reforms NC has undertaken over the past several years are the steady increases in graduation rates overall and across almost all student group sub-groups. While there is much work still to be done, the trends evident in Table 7 suggest that the many NC and local efforts are having a positive impact across all student groups, with the exception of

students with limited English proficiency. Worth noting, however, is that the number of English Language-Learning students is growing quickly in NC, so the decrease in the graduation rate for this group reflects both the changing population and the need for additional efforts in this area. The RttT initiatives, especially the turnaround schools efforts (Section E2) and the equitable distribution of teachers and principals initiatives (Section D3), will increase graduation rates for all groups of students.

Table 7: Four-Year Graduation Rate

GRADUATION YEAR	NC Mean Score	White	Black	Hispanic	Asian	Native American	Multi-Racial	Economically Disadvantaged	Limited English Proficient	Stuents With Disabilities
2006	68.3%	73.5%	60.4%	52.3%	75.2%	51.1%	66.0%	55.6%	55.0%	50.0%
2007	69.5%	75.0%	61.4%	53.7%	78.9%	55.6%	65.4%	66.0%	52.1%	49.5%
2008	70.3%	75.7%	62.7%	56.4%	81.0%	53.8%	68.4%	59.2%	49.9%	56.6%
2009	71.7%	77.7%	63.2%	58.9%	83.6%	60.0%	71.5%	61.8%	52.1%	56.8%
Total change	**+3.4**	**+4.2**	**+2.8**	**+6.6**	**+8.4**	**+8.9**	**+5.5**	**+6.2**	**-2.9**	**+6.8**

(B) Standards and Assessments (70 total points)

State Reform Conditions Criteria

(B)(1) Developing and adopting common standards *(40 points)*

The extent to which the State has demonstrated its commitment to adopting a common set of high-quality standards, evidenced by (as set forth in Appendix B)—

(i) The State's participation in a consortium of States that— *(20 points)*

(a) Is working toward jointly developing and adopting a common set of K-12 standards (as defined in this notice) that are supported by evidence that they are internationally benchmarked and build toward college and career readiness by the time of high school graduation; and

(b) Includes a significant number of States; and

(ii) — *(20 points)*

(a) For Phase 1 applications, the State's high-quality plan demonstrating its commitment to and progress toward adopting a common set of K-12 standards (as defined in this notice) by August 2, 2010, or, at a minimum, by a later date in 2010 specified by the State, and to implementing the standards thereafter in a well-planned way; or

(b) For Phase 2 applications, the State's adoption of a common set of K-12 standards (as defined in this notice) by August 2, 2010, or, at a minimum, by a later date in 2010 specified by the State in a high-quality plan toward which the State has made significant progress, and its commitment to implementing the standards thereafter in a well-planned way.[2]

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

[2] Phase 2 applicants addressing selection criterion (B1ii) may amend their June 1, 2010 application submission through August 2, 2010 by submitting evidence of adopting common standards after June 1, 2010.

Evidence for (B)(1)(i):

- A copy of the Memorandum of Agreement, executed by the State, showing that it is part of a standards consortium.
- A copy of the final standards or, if the standards are not yet final, a copy of the draft standards and anticipated date for completing the standards.
- Documentation that the standards are or will be internationally benchmarked and that, when well-implemented, will help to ensure that students are prepared for college and careers.
- The number of States participating in the standards consortium and the list of these States.

Evidence for (B)(1)(ii):

For Phase 1 applicants:

- A description of the legal process in the State for adopting standards, and the State's plan, current progress, and timeframe for adoption.

For Phase 2 applicants:

- Evidence that the State has adopted the standards. Or, if the State has not yet adopted the standards, a description of the legal process in the State for adopting standards and the State's plan, current progress, and timeframe for adoption.

Recommended maximum response length: Two pages

B.i. Developing and Adopting Common Standards

B.1.i. Developing and adopting common standards in a consortium of States

North Carolina is an active member of the *Common Core State Standards Initiative*, a 48-state initiative.

Commitment to Common Core Standards

NC is a committed participant in, and signatory to, the *Common Core State Standards Initiative*, which is driven by a Consortium that has developed shared state standards in K-12 Mathematics and English. This Consortium is led by the National Governors' Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO) and includes 48 states. A copy of the Standards Consortium Memorandum of Agreement, the list of participating states, and one section of each of the English Language Arts (ELA) and Mathematics standards can be found in Appendices 11, 12, 13 and 14.

NC has demonstrated commitment to raising and clarifying standards, as evidenced by the recommendations of the State Board's Blue Ribbon Commission on Testing and Accountability (NC Blue Ribbon Commission, 2008b) and the follow-up action plan, *A Framework For Change,* created by the State Board (NC Blue Ribbon Commission, 2008a; see Appendix 15 for a section of this document). This work led to NC's five-year Accountability and Curriculum Reform Effort, which includes the revision of all NC standards to focus on deeper essential standards and demonstrates NC's commitment to internationally benchmarked, "fewer, clearer, and higher" standards. NC also is committed to leveraging standards common to multiple states to gain new advantages, including national equity of expectations for students, potential economies of scale around curriculum and assessment, comparable student achievement data, and the resulting opportunity to determine what truly works across the country.

Our confidence that the Common Core will establish a high bar defining the most important student outcomes is supported by evidence that the standards are on par with international expectations and will produce high school graduates ready for college and careers. The Consortium has used exemplar state standards to inform the writing process and has convened a strong group of experts to draft, revise, and validate the Common Core. As described in documentation provided by CCSSO (see Appendix 16), the Common

Core standards are internationally benchmarked and, when well implemented and achieved, will ensure college and career readiness. Dr. Jere Confrey, a leading researcher at NC State University (NCSU) on mathematics learning trajectories, was a member of both the NC Mathematics standards team and the Common Core validation committee and will help plan the NC transition to the Common Core mathematics standards.

B.1.ii. Plan to develop and adopt common standards

North Carolina will adopt the Common Core Standards by July 31, 2010.

NC will adopt the Common Core by July 31, 2010, and integrate them into our ongoing Accountability & Curriculum Reform Effort work, with its three-fold focus on improved standards, comprehensive assessment, and a next-generation state accountability model. The State Board of Education (State Board) has documented its commitment to the Common Core and has the authority to adopt content standards as granted by NC General Statute 115C-12 (9c), described in Appendix 17. The Governor's Education Cabinet and key legislative leaders have also indicated support for the Common Core. On January 13, 2010, as part of her *Career and College: Ready, Set, Go* Education Agenda (see Section A1), Governor Perdue directed the State Board, UNC Board of Governors (UNC), NC Independent Colleges and Universities, and the NC Community College Board to develop a process for adopting the Common Core. The North Carolina Parent Teacher Association also has signed resolutions supporting the adoption and implementation of the Common Core standards (see Appendix 18). NC recognizes that these new standards are necessary but not sufficient to significantly improve achievement and close achievement gaps; therefore, NC also will invest in a strategic roll-out and professional development plan, as outlined in Sections B3, C3, and D5.

Note: NC will bring the final Common Core (released June 2, 2010) to the State Board in June for discussion and in July for adoption. Evidence of the adoption of the Common Core will be sent as an addendum to this application directly after the July 2010 State Board meeting.

(B)(2) Developing and implementing common, high-quality assessments *(10 points)*

The extent to which the State has demonstrated its commitment to improving the quality of its assessments, evidenced by (as set forth in Appendix B) the State's participation in a consortium of States that—

(i) Is working toward jointly developing and implementing common, high-quality assessments (as defined in this notice) aligned with the consortium's common set of K-12 standards (as defined in this notice); and

(ii) Includes a significant number of States.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (B)(2):

- A copy of the Memorandum of Agreement, executed by the State, showing that it is part of a consortium that intends to develop high-quality assessments (as defined in this notice) aligned with the consortium's common set of K-12 standards; or documentation that the State's consortium has applied, or intends to apply, for a grant through the separate Race to the Top Assessment Program (to be described in a subsequent notice); or other evidence of the State's plan to develop and adopt common, high-quality assessments (as defined in this notice).
- The number of States participating in the assessment consortium and the list of these States.

Recommended maximum response length: One page

B.2. Developing and Implementing Common, High-Quality Assessments

B.2.i. and B.2.ii. Jointly developing and implementing assessments with a significant number of states

As a governing state (the only one from the Southeast) in the SMARTER Balanced Assessment Consortium, NC will help lead efforts to jointly develop common, high quality assessments. The Consortium currently has 33 members, of which 13 are governing states.

NC is committed to collaborating with other states and national organizations to develop common assessments to measure student achievement of the Common Core. On January 6, 2010, the State Board approved the following resolution: "The North Carolina State Board of Education endorses North Carolina working in collaboration with other states on formative, benchmark, diagnostic and summative assessments based on Common Core standards" (Appendix 4). NC has joined the SMARTER Balanced Assessment Consortium (Consortium) as a governing state. As part of this Consortium, NC plans to be party to an application for a RttT comprehensive assessment grant to support development of a system of summative, formative, and interim assessments closely related to our vision for a statewide instructional improvement system outlined in Section C3

As a governing state serving on four working committees, NC will work with the Consortium to develop innovative assessments, including technology-enhanced and performance-based items that are implemented entirely through an online system. The Consortium is also investigating the possibility of scoring these innovative items using artificial intelligence, which will allow teachers to access feedback and analysis soon after administration of the assessments.

Well before the advent of the Common Core, NC demonstrated commitment to developing common assessments. As a member of the American Diploma Project's Assessment Consortium (15 states), NC worked on establishing common Algebra I and Algebra II assessments. The resulting end-of-course exams represented the largest multistate common assessment effort ever undertaken (Achieve, 2009). See Appendix 19 for American Diploma Project contract; see Appendix 20 for a copy of the signed consortia agreement of what is now the SMARTER Balanced Assessment Consortia and Appendix 21 for a list of participating states.

(B)(3) Supporting the transition to enhanced standards and high-quality assessments *(20 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that build toward college and career readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards. State or LEA activities might, for example, include: developing a rollout plan for the standards together with all of their supporting components; in cooperation with the State's institutions of higher education, aligning high school exit criteria and college entrance requirements with the new standards and assessments; developing or acquiring, disseminating, and implementing high-quality instructional materials and assessments (including, for example, formative and interim assessments (both as defined in this notice)); developing or acquiring and delivering high-quality professional development to support the transition to new standards and assessments; and engaging in other strategies that translate the standards and information from assessments into classroom practice for all students, including high-need students (as defined in this notice).

The State shall provide its plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Eight pages

B.3. Supporting the Transition to Enhanced Standards and High-Quality Assessments

North Carolina will transition to the *Common Core Consortium* and other new State standards, and high-quality assessments tied to these standards, by working in partnership with LEAs to do the following:

- Generate educator and stakeholder support of the new standards;
- Ensure educator mastery of the standards and provide educators with the necessary tools to translate that knowledge into student outcomes;
- Support meaningful use of test data and help educators and students transition to using online testing; and
- Align high school exit criteria and college entrance requirements to the standards.

Improving state standards and assessments are essential steps toward transforming schools and classrooms; NC has an ambitious but achievable plan to accelerate this transformation. Going beyond adoption of the Common Core English Language Arts (ELA) and Mathematics standards, NC plans to use RttT funding also to revise the K-12 standards and assessments *in all other subject areas* to ensure that they reflect internationally benchmarked expectations and promote career and college readiness. RttT funding will thus support the State's efforts to transform all content areas. NC is aware, however, that the impact of even such sweeping improvements will depend primarily upon the beliefs, knowledge, and skills of educators who will use the standards and assessments to improve instruction. NC's goals around the implementation of the new standards and assessments therefore focus largely on providing professional development and learning tools to shape teachers' and administrators' beliefs, knowledge, and skills in ways that will lead to improved student achievement.

Goals for Transition to the New Standards and Assessments

NC's goals for implementing new standards and assessments are as follows:

1. Build and reinforce educators' and stakeholders' belief that the new standards will improve student outcomes;
2. Ensure every teacher in NC has a deep, specific understanding of the standards and can implement them to improve student outcomes;

3. As part of instituting a comprehensive assessment approach, ensure summative tests and summative test data are used effectively, and that schools are ready to move swiftly to a digital assessment environment.; and
4. Align high school exit criteria and college entrance requirements to the new standards.

Sharing new standards with other states will create unprecedented opportunities for collaborating to develop and deliver common tools and training that support implementation of standards. This collaboration will help NC to achieve the goals listed above and, ultimately, will help all students reach the high bar set by the new standards. NC recognizes the power of sharing the responsibility of the transition to new standards and assessments, and is committed to partnering with other states to develop aligned curricular and assessment tools and shared professional development resources. NC will use the technology infrastructure described in Section A2 to support the activities that will help us meet our transition goals. We will carefully monitor and document progress toward achievement of those goals. The following paragraphs provide further detail regarding each component of NC's transition plan.

Transition Goal 1. Build and reinforce educators' and stakeholders' belief that the new standards will improve student outcomes

Teachers, school staff, parents, administrators, advocacy groups, education organizations, and business and university partners must understand that achievement of the new standards will benefit students substantially and will prepare them for success in college and in the workforce. To transform educational practices and policies, and thereby achievement, NC will prepare a communication plan to build stakeholder engagement in and commitment to the Common Core and other new enhanced standards. Key parts of this communication plan will include:

- *A clear message.* This emotionally and intellectually compelling message will focus on why the new standards matter and will tell a story important to schools, teachers, and students on a personal level. The message will be student-focused and centered on the "fewer, clearer, and higher" criteria and the international benchmarking that is central to the work of the Consortium.

- *Tools for understanding.* NC will provide teachers and other relevant school personnel with tools and professional development to help the personnel understand how the new standards differ from the current NC standards. These tools will enable personnel to drill into the content to obtain detailed understanding of both the expectations for students and the rationale for these expectations.
- *A communications schedule and media tools.* NC will develop a detailed communication schedule that identifies opportunities to build knowledge and investment among key audiences using a variety of approaches including the following:
  - Conference presentations,
  - Webinars,
  - Websites,
  - Resources to support local presentations, and
  - Public service announcements.

Transition Goal 2. Ensure every teacher in NC has a deep, specific understanding of the standards and can implement them to improve student outcomes

The new standards are intended to give a teacher, in only a few pages, a clear sense of what a student in the classroom must know and be able to do. While standards gain power and usability from their conciseness, teachers must understand them at a deep, specific level that influences their instruction. In order to teach the new standards, a teacher must do each of the following:

- *Understand* specifically how new standards differ from previous standards in scope and sequence, and how previous methods, lessons, units, projects, etc., may need to be adapted;
- *Identify* the prerequisite knowledge and skills that are key to mastery of a standard or a grade-level set of standards;
- *Connect and apply* standards within the context of other subject areas;
- *Connect* the standard to knowledge and skills that a student will learn in future grades or courses;

- *Unpack* the standards into smaller, more digestible knowledge and skills around which to build lessons;
- *Create plans* – long-term, unit and daily – that lead students to mastery of the standards;
- *Explain* a standard in student-friendly language and make simple and compelling arguments to students as to why the standard matters;
- *Know and plan for* common student mistakes or likely misunderstandings;
- *Use* formal and informal assessments that reliably and validly assess student mastery of standards and diagnose needs relative to the standards with a focus on the process of formative assessment and the use of data to make decisions; and
- *Convene in professional learning communities* to share insights and instructional strategies for teaching the standards, raising the achievement of all students, and closing achievement gaps.

Preparing teachers to meet these requirements is a central goal of the professional development activities described in Section D5. The activities described below will be integrated into the overall NC RttT professional development implementation and budget planning.

Activities to achieve Goal 2 fall into three categories: professional development (Table 8); instructional resource development and dissemination (Table 9); and incorporation of new standards into NC teacher preparation programs.

Professional Development. NC will take a blended approach to professional development, with both onsite (face-to-face) and online (virtual) activities centered on the new standards (see also Section D5). Professional development will be differentiated for educators based on their roles. Although objectives will overlap somewhat, principal and instructional lead training will focus on management and coaching of teachers under new standards, while teacher training will focus on effective instruction and achieving mastery of the standards. Broad categories for transition training are summarized in Table 8.

Table 8: Standards Transition - Professional Development

TRAINING CATEGORY	ESSENTIAL QUESTIONS
Introducing the New Standards	What will a student graduating under the new standards know and be able to do? What is different in these standards and why is it better for students in NC?
Preparing to Transition	What tools and lessons that were used previously are still applicable, what has been excluded, and what new content do the new standards require?
Unpacking the New Standards	How will educators unpack the content of the standards, and what do they really mean a student will know and be able to do? What sub-objectives or skills must a student master to fully achieve the standard? What student misunderstandings can educators anticipate?
The New Standards and Assessment	How will educators assess the new standards within the classroom? How should educators expect the new standards to be assessed on statewide summative assessments?
Leveraging the New Standards	What Common Core-aligned resources are being developed by other consortium states that educators can use to improve student achievement?
Sequencing the New Standards	How will educators develop pacing guides for the new standards?
Integrating the New Standards	How will educators horizontally and vertically integrate the standards across the curriculum?

Instructional resource development and dissemination. In addition to providing professional development on the new standards and assessments, NC will provide schools with instructional tools targeted to aid in the transition and to complement the professional development. Again, NC will work with members of the Consortium to develop instructional tools and professional development items. These tools will be delivered via a continually updated *Online Clearinghouse of Instructional Resources* that will be developed across the Consortium and aligned to the Common Core. The Instructional Improvement System described in Section C3 will also be aligned with the Common Core Standards. Table 9 includes some key components to be included.

Table 9: Standards Transition - Instructional Resources

RESOURCES	PURPOSE
Crosswalk Documents and Resource Transition Guides (per course or grade level)	Compare 2003 and new standards in side-by-side fashion to help teachers plan transition. Will allow LEAs to determine how to leverage existing instructional and curricular materials toward achieving new standards and identifying any gaps in resources
Glossary of Terms	Define terms used in the new standards that need specification and elaboration
Unpacked Content	Clarify and break standards into sub-objectives and illustrate key, specific components of what standards mean a student will know and be able to do
Examples of Assessment Tasks and Items	Make standards tangible and measurable. Will be linked to formative/interim assessment tools (as outlined in Sections B2 and C3). An extensive set of items requiring authentic, complex performances aligned to new standards will reinforce teaching the standards to their intended level of deep mastery and move teachers away from teaching to a particular test or item-type
Graphic Organizer (per course or grade level)	Visually represent "big picture" of how grade-level or course knowledge fits together, including zooming out to see the "map" of standards and making clear the vertical articulation of new standards
Classroom Examples/Video Vignettes (for selected standards)	Teachers visualize classroom practices that would support students in learning new standards
Learning Experiences/Lesson Plans	Provide a set of high-quality instructional resource materials for use in teaching the new standards. Will require coordination across states and over time, linking NC teachers to the resources of all consortium states
Student Progress Monitoring and Analysis Tools	Provide teachers with tools to gather student achievement results from formative/interim assessments to develop an increasingly reliable, actionable picture of student progress over time (see details in Section C3)
Pacing Guide Exemplars	Provide peer-reviewed pacing guide examples for new standards
Curricular Tools and Resources	Tools to connect teachers to effective standards-aligned curricula and adapt specific curricula to assure student achievement of new standards

Incorporation of new standards into NC teacher preparation programs. NC's teacher preparation programs have submitted plans to NCDPI and the State Board to align their programs to the NC Educator Evaluation System (described in greater detail in Section D2) and are currently executing those plans. Standard III of the Evaluation System tool requires that "Teachers know the content they teach." As part of the alignment to the evaluation tool, the NC Department of Public Instruction (NCDPI) will ensure that teacher preparation programs achieve the key objectives for implementing the Common Core and all enhanced standards, as defined above in this goal. The newly-aligned preparation programs will include professional training on the comprehensive assessments utilized in NC's instructional improvement system described in Section C3. A strong curricular emphasis will be placed on preparing beginning teachers to use formative and summative test data to guide instructional practices in the classroom.

Transition Goal 3. As part of instituting a comprehensive assessment approach, ensure summative tests and summative test data are used effectively and that schools are ready to move swiftly to a digital assessment environment.

This section focuses on key transition goals for moving toward common, high-quality, statewide *summative* assessments aligned to enhanced standards. Section C3 provides the details of NC's approach to supporting schools as they implement the NC instructional improvement system to use formative, diagnostic and interim data to improve instruction that will be a key component of the transition. The three large sub-goals for transition to new summative assessments are described below:

1. While maintaining NC's long track record of accountability for verifiable student achievement on summative assessments, direct instruction towards teaching the standards at their true intended level of depth and complexity. NC would like every teacher to understand clearly that in order to do well on the State test, his or her students must know the material described in the new grade-level or subject standards so completely that they can respond correctly to any question aligned to content or skill, in any context, including (but not limited to) the summative assessment. This teacher mindset is particularly important in low-performing schools where test scores are often a major focus and, at times, instructional methods are employed that are pointed at incremental gains on test scores rather than at teaching the standards to the level of completeness and complexity that is required to truly master them. To prepare NC teachers to approach the new standards and assessments with the desired mindset, the State will do the following:

- *Provide formative/interim assessment tools.* The standards-aligned formative/interim assessment tools referenced in Sections B2 and C3 will provide teachers with an extensive set of examples of the ways in which a particular standard could be measured. Teachers will have a more complete understanding of the range of assessment items that could be aligned to any one standard and therefore will be less likely to focus on "types" of questions and instead on complete mastery of the content or skill.
- *Provide professional development in assessment literacy.* In rolling out new summative assessments as part of a Consortium, NC is committed to being transparent, whenever feasible, regarding testing. When appropriate, we will release publicly test-specific information (e.g., test items, appropriate psychometric data, test guides. As part of professional development around the instructional improvement system outlined in Section C3, NC will ensure teachers understand key ideas of assessment literacy, as well as use of, and, most notably for this goal, the common misuses of summative assessments and data to inappropriately influence instructional practices and decisions.

2. Ensure summative assessment data are used effectively. School leaders can use summative assessment data effectively as part of the management, coaching, and goal-setting that is essential to creating a results-driven school environment. To support this practice, NC will design analytical tools and training that:

- Ensure schools use the Education Value-Added Assessment System (EVAAS) effectively, as described in Section C3;
- Enable principals, superintendents, and professional learning communities to identify gaps or strengths in teacher effectiveness, subject areas, grade levels, student subgroups, or particular standards, and plan based on that analysis;
- Enable principals, superintendents, and school leaders to create a culture focused on student achievement results and continuous improvement in student outcomes;
- Enable teachers, in concert with the use of diagnostic, formative, and interim assessment tools available in the instructional improvement system discussed in C3, to analyze the accuracy and efficacy of those classroom assessments in providing ongoing instructional assessment data and to reflect on ultimate outcomes within their classrooms; and

- Ensure that parents, principals, and teachers understand what standardized test results mean (*e.g.*, the urgency and consequences if a student is not achieving, or what actionable information can come from the test data and what supplemental information may be necessary to make the best decisions for students).

3. Ensure that schools have the logistical and technical knowledge and skills to move rapidly to an online testing environment. NC anticipates that new assessment systems will be delivered online. The many advantages of this type of platform include efficiency, near-instantaneous results, cost-savings, flexible data reporting, real-time adaptations for special needs students, and, most importantly, the prospective ability to gather data that yield a more valid and reliable picture of student learning and progress over time.

NC will develop a best-practices guide that includes case studies of schools that use school-wide online assessments. The guide will address issues of scheduling, financial planning, and technical requirements in order to move to online assessment and will include first person voices from schools with specific steps taken to build capacity.

Transition Goal 4. Align high school exit criteria and college entrance requirements to the new standards

All students entering grade 9 in the 2009-10 NC school year are required to pass courses as outlined in NC's Future-Ready Core policy (GCS-N-004). The Future-Ready Core raised graduation requirements in NC such that all students must pass English I, II, III, and IV, as well as four math courses, which should include Algebra I, Geometry, Algebra II, and a higher-level mathematics course for which Algebra II is a prerequisite. All students must take four math classes however, in rare cases a student may opt-out of Algebra II and take another course aligned with his or her post-secondary plans.

These graduation requirements will remain in place after the English Language Arts and Mathematics Common Core standards are adopted in July 2010. The entirety of the grades 9-12 Common Core English Language Arts standards will define the expectations for the English I, II, III, and IV courses as outlined in the policy. In Mathematics, the grades 9-12 Common Core standards will be incorporated into the scope of the Algebra I/Geometry/Algebra II and the Integrated Math I/II/II sequences. NC is committed to

ensuring that the expectations outlined in the Common Core College and Career Readiness standards are included in courses required for graduation and used in the NC accountability model.

Additional accountability measures that are in place in NC may be adapted for the common summative assessments aligned to the Common Core. Currently, NC requires that students score at a level of proficient or better on five required State end-of-course tests to graduate and that 25% of their final grades come from the end-of-course test score. The current policy on these student accountability measures will be reviewed as part of the implementation of a new assessment system and will be adapted appropriately.

NCDPI and NC's Institutions of Higher Education (IHE) will work in concert to ensure that the new summative assessments measure the skills, knowledge, and abilities required to be eligible for and successful in higher education. NC is currently revising its accountability model to include measures of achievement that are also meaningful to colleges and universities. Planned to be finalized by the end of 2010, the new model is anticipated to have accountability measures that include widely accepted college-entrance exams (*e.g.*, ACT or SAT).

Implementation timeline.

Table 10 provides a high-level overview of the timeline and parties responsible for the activities that will ensure we achieve our goals for the transition to new standards and assessments.

Evaluation.

Specific questions, data sources, and timelines governing the evaluation of this process are included in Appendix 7.

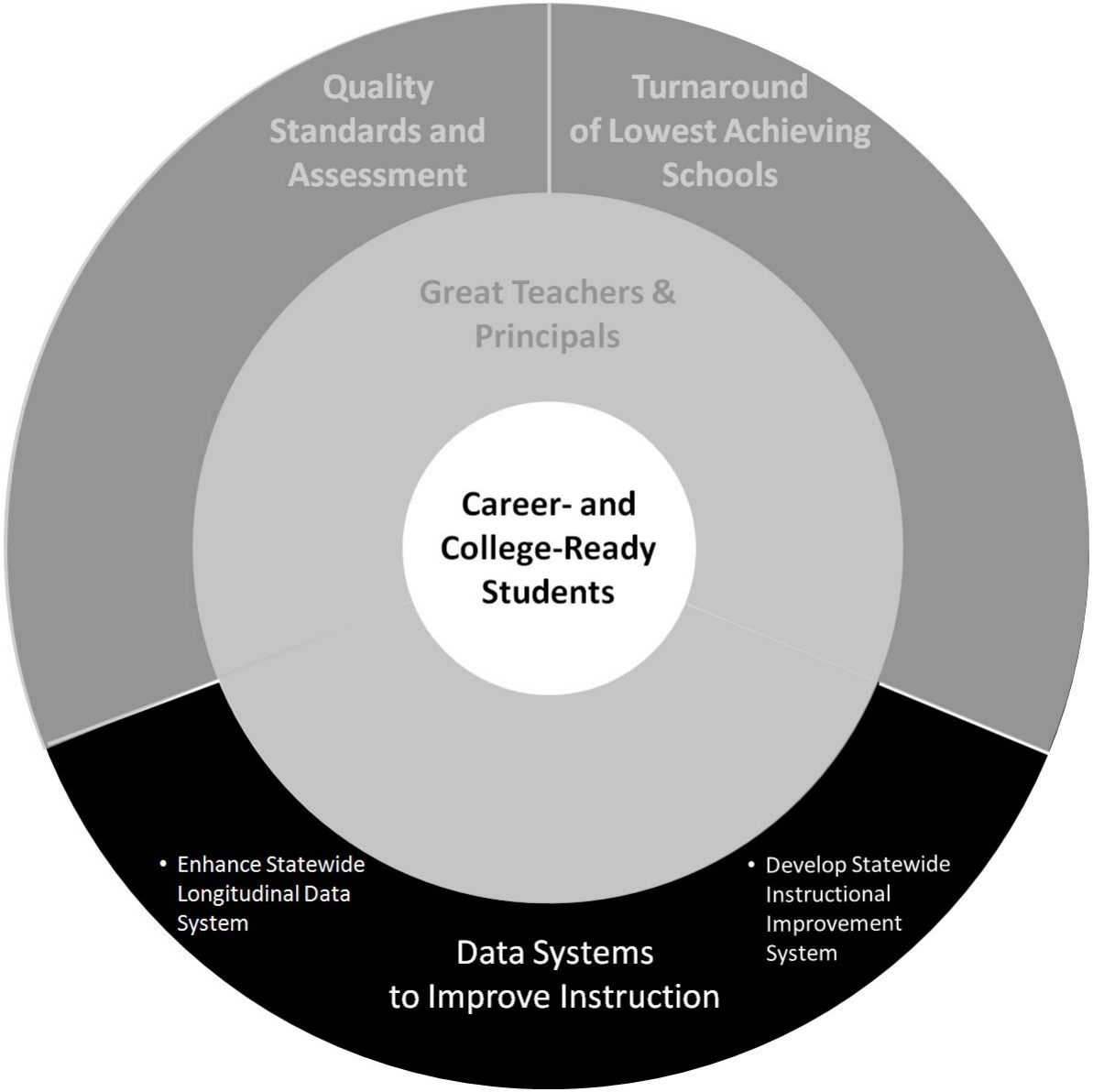
Table 10: Standards Transition - Timeline and Responsible Parties

ACTIVITY	RESPONSIBLE PARTY	2010 – 2014
Adopt Common Core - Math and ELA	State Board (SBE) and NCDPI	July 2010
Design professional development tools, training and communication strategies (100% **TG 1** activities and 50% of **TG 2** activities)	NCDPI, Consortium states with LEA input	Jul 2010 – Dec 2010
Design professional development tools, training and communication strategies (additional 50% **TG 2** activities)	NCDPI, Consortium states with LEA input	Sept 2010 – Aug 2011
Implement professional development tools, training and communication activities from **TG 1**	Participating LEAs and NCDPI	Sept 2010 – Aug 2011
Implement professional development tools, training and communication activities from **TG 2**	Participating LEAs and NCDPI	Jan 2011 – Dec 2013
Design professional development tools, training and communication strategies from **TG 3**	NCDPI, assessment consortium with LEA input	Jan 2010 – August 2010
Implement professional development tools, training and communication activities from **TG 3**	Participating LEAs and NCDPI	Sept 2011 – Dec 2013
Align policy upon implementation of new standards and assessments relative to **TG 4**	SBE and NCDPI	Aug 2011 – June 2012
New Common Core standards and other enhanced standards operational	SBE and NCDPI	June 2012 and forward
Ongoing professional development and support of standards based on needs assessment (See Section D5)	SBE and NCDPI	Ongoing
Annual evaluation of professional development including student achievement measures, user feedback and process measures.	SBE and NCDPI	Annually

Transition Goals for B3

- **TG 1** Build stakeholder belief in new standards
- **TG 2** Ensure understanding/ability to implement standards
- **TG 3** Support new assessments and transition to online testing
- **TG 4** Align high school exit criteria and college entrance requirements to standards

(C) Data Systems to Support Instruction ***(47 total points)***



State Reform Conditions Criteria

(C)(1) Fully implementing a statewide longitudinal data system *(24 points – 2 points per America COMPETES element)*

The extent to which the State has a statewide longitudinal data system that includes all of the America COMPETES Act elements (as defined in this notice).

In the text box below, the State shall describe which elements of the America COMPETES Act (as defined in this notice) are currently included in its statewide longitudinal data system.

Evidence:

- Documentation for each of the America COMPETES Act elements (as defined in this notice) that is included in the State's statewide longitudinal data system.

Recommended maximum response length: Two pages

C.1. Fully implementing a statewide longitudinal data system

North Carolina's statewide longitudinal data system includes all of the America COMPETES Act elements. We have been engaged formally in sharing longitudinal data for policy making across the State's education and workforce sectors for almost twenty years, and are now in the process of significantly enhancing our SLDS to improve data quality, accessibility, and use both within the PK-12 sector and across the PK-20+ continuum.

Background: Evolution of the NC SLDS

NC has been a leader in collection, management, and use of education data across the P-20+ education-to-workforce continuum. Over the past twenty years, our State Longitudinal Data System (SLDS)[3] has evolved to include multiple data stewards, technology mechanisms, and inter-agency partnerships. In our continuous efforts to improve the reliability, accessibility, and robustness of the system, a number of key initiatives have contributed to our development of the advanced system we have in place today (that includes all of the America COMPETES Act elements; see Table 11 below) and the plans we have to take that system further still.

In 1992, the State established a Common Follow-up System – a cooperative venture of several State agencies under the auspices of the NC State Occupational Information Coordinating Committee – which was designed to enable evaluation of the effectiveness of the State's publicly supported educational, employment, and training programs. The Common Follow-up System included a limited set of linkable individual record-level demographic and program participation data from each of the following agencies:

- The NC Department of Public Instruction (NCDPI)
- The NC Community College System
- The University of North Carolina (UNC)
- The Employment Security Commission of NC
- The NC Department of Health and Human Services

[3] Though much of this system has been functional for two decades, we have only referred to it as an "SLDS" for about five years.

- The NC Department of Labor.

In 1995, the NC General Assembly codified in statute the requirements that NC operate this system and that the agencies noted above contribute specified data to it annually. While use of these data for policy-making has focused primarily on adjusting workforce development programming, education leadership has used the Common Follow-up reports to track numbers of high school graduates who move on to higher education and the workforce in NC. The initiative has laid the groundwork for both strong inter-agency collaboration around data and for development of the more robust education program-focused SLDS we have today.

Coincident with this sharing among State agencies, since the late 1980s NCDPI has also been producing and sharing with various research partners student record-level data like those referenced in the America COMPETES Act. Through memoranda of understanding with Duke University's NC Education Research Data Center (Duke Data Center), the NC Community College System, and UNC, NCDPI has provided voluminous data files annually in return for services (such as the assignment of random research identifiers to teacher and student files, as well as screening of research requests from other entities) and analysis (such as evaluation of legislated or NCDPI-initiated programs). This partnership has produced much useful analysis that has informed policy and decision making, but alone, the partnership has not been sufficient to address some of the SLDS's mechanical inefficiencies (*e.g.*, in assembling and sharing data files) and limitations on data quality. Fortunately, a related effort now nearing completion has addressed these issues.

In 2007, NCDPI received funding as part of the National Center for Education Statistics Institute of Education Sciences SLDS grant program to establish a robust PK-12 SLDS that includes statewide unique student and staff identifiers *that are not social security numbers*, as well as a comprehensive centralized statewide PK-12 data repository that supports trend analysis and exploration of the relationships between various education inputs and student outcomes. This new DPI technology system, called the Common Education Data Analysis and Reporting System (CEDARS) automates the reliable linking and analysis of data sets that in prior years had been assembled through labor-intensive manual processes. As noted below, the unique identifier system is now in operation and already is improving data quality at the local education agency (LEA) and State levels. The CEDARS data repository, targeted for

completion in October 2010, will automate creation of longitudinal data sets, enable users in NCDPI and the LEAs to produce standard and *ad hoc* reports through a powerful centralized, web-based business intelligence tool, and enable researchers to obtain mediated data extracts. Until the CEDARS repository construction is completed, NCDPI will continue to share data (now containing student and staff unique identifiers), consistent with current practice, with the agency and research center partners noted above.

The next phase in the continuous improvement of the NC SLDS also has already begun. Since summer 2008, NCDPI has worked closely with NC's other education sectors and the NC Employment Security Commission to develop clear plans for an enhanced, robust PK-20+ SLDS, known as "NC P20+." Although NCDPI's 2009 proposal to USED requesting a PK-20 SLDS grant to support the NC P20+ initiative was not funded, NC will still push forward, albeit less ambitiously, efforts to establish formal, statewide, collaborative governance and a technology infrastructure that will enhance accessibility, quality, interoperability, and use of shared data needed for sector-specific and statewide, cross-sector analysis and reporting.

Current Status: All 12 Elements

While NC continues to improve our SLDS, by completing initial implementation of the CEDARS PK-12 repository and launching the NC P20+ initiative, we are merely enhancing a system that already contains all twelve of the America COMPETES Act elements. Table 11 explains how the existing NC SLDS meets each of the elements.

Table 11: Status of the 12 *America COMPETES Act* SLDS Elements in NC

America COMPETES Act Element	NC SLDS Status
1. A unique statewide student ID that does not permit a student to be individually identified by users of the system [PK-16]	**NC has a unique statewide student ID that does not permit a student to be individually identified by users of the system [PK-16].** As part of CEDARS, NCDPI has implemented a statewide unique student and staff identifier system. Each student and staff person participating in all programs (pre-K through early college high school, which sometimes involves a grade 13) overseen by the NC State Board of Education (State Board) is uniquely identified, at their earliest contact with an State Board program, with a random number that is used strictly for educational management, evaluation, and planning purposes (*i.e.*, not a Social Security Number). As part of the NC P20+ initiative, the NC Community College System, University of North Carolina, and the Association of NC Independent Colleges and Universities have agreed to store the PK-12 unique student identifier with their student records to enable linkage across education sectors for purposes of analysis and planning. This agreement effectively makes the PK-12 unique identifier a statewide "NC P20+ unique identifier." The higher education and workforce sectors are working to streamline and automate the processes by which they access and store the NC P20+ unique identifier in their student data files. In addition, as part of the NC P20+ initiative, the education and workforce sectors will explore enriching the SLDS by attaching P20+ unique identifiers to historical data files. Another notable feature of the NC unique identifier system is that it is designed so that in the future, as the NC P20+ collaborative expands to include data from other State agencies, such as the Department of Juvenile Justice, any new agency's efforts to access and store the NC P20+ unique identifier will be relatively simple.

America COMPETES Act Element	NC SLDS Status
2. Student-level enrollment, demographic, and program participation information [PK-16]	**All NC education sectors can produce student-level enrollment, demographic, and program participation information [PK-16].** NCDPI, the NC Community Colleges System, and UNC have strong, centralized data collection and management systems in place. The NC Independent Colleges and Universities and the NC Early Childhood Data Group, which represents a collaboration between various early childhood service agencies, currently produce these data through other means.
3. Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs [PK-16]	**All NC education sectors collect student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs [PK-16].** These collection efforts will be improved and better coordinated across sectors as part of the NC P20+ collaborative efforts.

America COMPETES Act Element	NC SLDS Status
4. The capacity to communicate with higher education data systems [PK-16]	**NC's SLDS has the capacity to communicate with higher education data systems [PK-16].** The operational PK-12 statewide unique identifier system (established through CEDARS) enables all NC education sectors to access unique identifiers for students, subsequently enabling linkage of individuals' records across sectors. As noted in #1 above, NC higher education entities have agreed to adopt these unique identifiers. Work remains to improve automated data integration both within and across sectors by formalizing business and technology processes to access and store the unique identifier and to exchange linked data files; this enhancement work is targeted as part of the NC P20+ initiative.
5. A State data audit system assessing data quality, validity, and reliability [PK-16]	**Each NC education sector employs a data audit system that assesses data quality, validity, and reliability [PK-16].** NCDPI, the NC Community College System, and UNC all implement independent but complementary processes and procedures for enforcing sector-specific data quality, validity, and reliability standards. As part of the NC P20+ initiative, all the NC education sectors will collaborate to ensure the quality, validity, and reliability of the shared NC P20+ data set.
6. Yearly test records of individual students with respect to assessments under section 1111(b) of 1965 ESEA [PK-12]	**NCDPI has collected yearly test records of individual students with respect to assessments under section 1111(b) of 1965 ESEA [PK-12] data since the early 1990s.**

America COMPETES Act Element	NC SLDS Status
7. Info. on students not tested, by grade and subject [PK-12]	**NCDPI has collected information on students not tested, by grade and subject [PK-12], since the early 1990s.**
8. A teacher identifier system with the ability to match teachers to students [PK-12]	**NCDPI has a teacher identifier system with the ability to match teachers to students [PK-12].** NC's PK-12 unique identifier system assigns a statewide unique identifier for each teacher employed by the public schools. This unique identifier is then stored by the State's student information system, which contains all students, their course/class enrollments, and the teachers associated with those courses/classes. Together, these data enable matching of students and teachers at specific grade levels and/or for specific courses for purposes of analysis and reporting.
9. Student-level transcript info., including information on courses completed and grades earned [PK-12]	**NCDPI captures and produces student-level transcript information, including information on courses completed and grades earned [PK-12].** The NCDPI-operated statewide student information system collects these data, which can be transferred both between local education agencies (LEAs) and, through a partnership with the College Foundation of NC, between LEAs and UNC campuses.

America COMPETES Act Element	NC SLDS Status
10. Student-level college readiness test scores [PK-12]	**NCDPI has student level college-readiness test scores [PK-12]** of several types and forms. First, NCDPI reports student performance on State tests in terms of equivalent Lexiles and Quantiles. This research-based, criterion-referenced framework estimates the complexity of the work that a student is capable of completing, based on his or her performance on State tests in reading and math, respectively. The Lexile/Quantile scale enables comparison of a student's demonstrated capability to established benchmarks for the complexity of work required in college, the workplace, and the military. NC also has a statewide license enabling the NCDPI and all LEAs to access predictive reports from the Educator Value-Added Assessment System (EVAAS). These reports estimate a student's achievement trajectory based on past performance. More details about this system are included in Section D2. NCDPI procures extensive Scholastic Aptitude Test (SAT) data from the College Board for all students taking the SAT. Also, NC provides funding for each student in grade 10 to take the PSAT and records score data from the College Board for those students.

America COMPETES Act Element	NC SLDS Status
11. Data that provide information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether student enroll in remedial coursework (postsecondary)	**NC collects data that provide information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether student enroll in remedial coursework (postsecondary).** NCDPI, the NC Community College System, UNC, and the NC Employment Security Commission collaborate on several standard tracking/reporting efforts (*e.g.*, Common Follow-up System, High School Feedback Reports, Freshman Performance Report) that address these topics. Through the NC P20+ initiative, these information products will be further refined and/or expanded.

America COMPETES Act Element	NC SLDS Status
12. Data that provide other information determined necessary to address alignment & adequate preparation for success in postsecondary education	**In addition to those elements noted above, NC has rich longitudinal data that provide other information determined necessary to address alignment & adequate preparation for success in postsecondary education.** NC data, provided through the Duke Data Center, have enabled many, varied studies exploring the relationships between PK-12 education programs and policies, student performance, and student matriculation to and success in post-secondary education. These studies have included the following: • Using Lexiles to Support Instruction and Improvement in NC Schools • The Effect of *Teach for America* on Student Performance in High School • Study of the Efficacy of the NC Learn and Earn Early College High School Model • Effects of Summer Academic Programs in Middle School on High School Test Scores, Course-taking, and College Major • Extending Opportunity in Higher Education: Starting and Finishing at Public Universities NC also is conducting an ongoing study examining the differential impacts on PK-12 student performance of teachers prepared in UNC teacher preparation programs. UNC is using the findings from the first wave of this study to guide its review and reform of teacher preparation programs (see Section D4). Expanding upon and enhancing this type of action-oriented research is a primary focus of the NC P20+ initiative.

Reform Plan Criteria

(C)(2) Accessing and using State data *(5 points)*

The extent to which the State has a high-quality plan to ensure that data from the State's statewide longitudinal data system are accessible to, and used to inform and engage, as appropriate, key stakeholders (*e.g.*, parents, students, teachers, principals, LEA leaders, community members, unions, researchers, and policymakers); and that the data support decision-makers in the continuous improvement of efforts in such areas as policy, instruction, operations, management, resource allocation, and overall effectiveness.[4]

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Two pages

[4] Successful applicants that receive Race to the Top grant awards will need to comply with the Family Educational Rights and Privacy Act (FERPA), including 34 CFR Part 99, as well as State and local requirements regarding privacy.

C.2. Accessing and using State data

NC has two strategies in place to help the State meet the goal of ensuring that data from the State's SLDS are accessible to, and used to inform and engage (as appropriate), key stakeholders (*e.g.*, parents, students, teachers, principals, LEA leaders, community members, professional associations, researchers, and policymakers). These strategies ensure that the data made available support decision-makers in the continuous improvement of efforts in such areas as policy, instruction, operations, management, resource allocation, and overall effectiveness.

Strategy One: Providing Sector-Specific Data and Information Products

All NC education sectors are committed to improving student learning and to collecting data needed to establish the effectiveness of policies and practices; *i.e.*, to enabling true evidence-based decision-making by State and local policymakers and service providers. To this end, all NC education sectors currently produce annual reports for their direct clients and for the public that are built on sector-specific demographic, program participation, and performance data. Each sector makes its specific plan for creating these data and information products based on assessment of client needs (including the needs of other education sectors) and public interest. For example, in the PK-12 arena, NCDPI creates many products, some of which are mandated federally (*e.g.*, EDEN/EdFacts submissions) or by the State (*e.g.*, statutory Consolidated Report on School Crime and Violence), some of which are in response to specific requests or research initiatives (*e.g.*, files for the NC Education Research Data Center, housed at Duke University, and for SAS Institute, operator of the Educator Value-Added Assessment System), some of which (*e.g.*, Statistical profile, Highlights of the Public Schools Budget, interactive LEA Expenditures website) are specifically targeted for State and local policy makers, and some of which are in anticipation of general public interest (*e.g.*, interactive School Report Cards and graduation rate websites). Highlights of NCDPI's highest-priority and most-utilized data and information products, organized by target audience, include:

- ***For Parents and Students***. After each administration of end-of-grade or end-of-course State tests, parents receive an Individual Student Report, which details how the student performed on the test. The report includes the student's scale score, achievement

level, and percentile rank; and Lexile and Quantile scores.[5] In grades three through eight, tests are placed on a developmental scale so that parents can determine the growth a student makes relative to the previous grade level. Students and parents can use assessment data, particularly the Lexile and Quantile scores, to set academic goals for the following year, identify areas of weakness, develop strategies for reaching those goals, monitor their progress over the year using benchmark assessment data, and adjust as needed.

- ***For Teachers***. Since 1995-96, NCDPI has provided teachers annually with standard reports documenting their students' results on State end-of-grade tests of reading and math. As with the Individual Student report, this report for teachers includes a student's Lexile reading score and, beginning in 2009-10, a Quantile mathematics score. Using this score information, along with other diagnostic information (such as predictive analyses supplied by the Educator Value-Added Assessment System), teachers can plan effectively for whole-class instruction as well as for ways to differentiate to provide appropriate supports as needed.
- ***For Local Education Agencies (LEAs)***. NCDPI provides each LEA with secured access to several technology applications, which are used to scan and score standardized State tests, to manage testing and accountability data, and to produce associated reports. One application enables LEAs to view their State test results by student, classroom, school, and LEA, and to compare to statewide results. LEAs are able to manipulate this application to create any desired cohort of students, permitting the evaluation of specific programs designed to raise achievement. A separate application provides access to historical data by student, classroom, and LEA. NCDPI Regional Accountability Coordinators work with each LEA testing office to process and analyze the data and to help the LEA administrators (including principals) utilize the data for local decision-making.
- ***For Community Members/Associations/Public***. NCDPI provides through its public website and publication services various information products that respond to public demand for annual summary program, personnel, and budget statistics about schools

[5] A Lexile is a criterion-based measures used for determining the complexity of text a student is able to comprehend successfully. A Quantile is a measure that determines a student's readiness to learn more advanced mathematical skills.

and LEAs. Examples of these products are the interactive School Report Cards site, which provides sortable, printable standard reports containing information about each LEA's and school's and overall State performance on the end-of-grade and end-of-course tests (see Section D2 for discussion of ABCs accountability system);, and the Finance and Business Services site, which provides a quick reference document entitled "Highlights of the Public Schools Budget" (containing summaries of State appropriations and expenditures by category, personnel statistics, *etc*.) and the State Statistical Profile, which contains various data on each LEA's expenditures, personnel, and student populations.

- ***For Researchers***. As noted in the response to C1, NCDPI provides standard student-level data files annually to researchers at the Duke Data Center, UNC, SAS Institute (proprietors/operators of EVAAS) and to the NC Employment Security Commission (for the Common Follow-Up System).
- ***For Policymakers***. In addition to the many customized, *ad hoc* information products NCDPI creates annually in response to legislative and other public data and information requests, the Departments provides through its website and publication services a number of standard reports created to address the expressed interests of State and local policymakers. Some of these products are noted above in the bullet addressing the Community Members/Associations/Public audience (*e.g*., School Report Cards, Statistical Profile) and some double as statutory reports provided to the General Assembly's Joint Legislative Education Oversight Committee (*e.g*., Consolidated Report on School Crime and Violence). Others products in high demand that are offered through the NCDPI website include standard reports regarding public schools personnel statistics, aggregate salary statistics, and various interactive spreadsheet tools that enable a user to sort allotments, general current expense expenditures, ARRA-related expenditures, and other types of data by LEA. The legislative fiscal analysts staffing the General Assembly's Education Appropriations Committee are heavy users of these reports and tools.

In addition to the products above that already are being created regularly NCDPI is poised to provide a range of stakeholders with enhanced capability to access important data through standard reports and *ad hoc* querying. In October 2010, the initial

implementation of the CEDARS longitudinal data repository and associated business intelligence tools will provide NCDPI and each LEA with improved access (through role-based security) to PK-12 data of multiple types (test scores, student information, program participation). NCDPI and LEA staff will be trained to use CEDARS business intelligence tools to produce annual and/or *longitudinal* reports relating various program and performance data across school years. By the end of the year, NCDPI also will scale up statewide an operational data store and business intelligence tool associated with the statewide student information system, the NC Windows of Information on Student Education (NCWISE). Expanding this *operational* business intelligence capability statewide will enable every LEA to produce standard and *ad hoc* reports using student data during the course of the school year.

Strategy Two: Providing Cross-Sector Data Analysis and Information Products

NC education sectors have a long history of sharing data across sectors to assess student achievement and evaluate policies and practices aimed at education system alignment and promotion of student success. Examples of some priority products of this cross-sector or joint analysis include the following:

- NC Early Childhood Data Group entities and the NCDPI maintain a close working relationship that helps both entities to refine programs to promote school readiness and a smooth transition from early childhood programs to kindergarten;
- The NC Community College System and UNC provide extensive performance feedback to high schools regarding how their graduates have performed in college (High School Feedback Report, Freshman Performance Report);
- UNC provides similar feedback to all NC community colleges regarding their students who later attend NC universities; and
- UNC, the Community College System, and the NC Independent Colleges and Universities work with the NC Employment Security Commission through the Common Follow-up System to relate educational experience to workforce participation and performance.

A notable recent example of rigorous, action-oriented research using cross-sector data (described in greater detail in Section D4) is UNC's and NCDPI's recent collaboration on a study of teacher quality that tracks the impact on student learning at the elementary, middle, and secondary school levels of teachers trained by the various UNC colleges of education. UNC already is using the results of

this study to guide modifications to the teacher preparation programs operating on its various campuses. Moving forward, a high priority focus of similar research will examine possible relationships between course-taking patterns, program participation, and enrollment in remedial coursework at an NC Community College or University.

(C)(3) Using data to improve instruction *(18 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan to—

(i) Increase the acquisition, adoption, and use of local instructional improvement systems (as defined in this notice) that provide teachers, principals, and administrators with the information and resources they need to inform and improve their instructional practices, decision-making, and overall effectiveness;

(ii) Support participating LEAs (as defined in this notice) and schools that are using instructional improvement systems (as defined in this notice) in providing effective professional development to teachers, principals and administrators on how to use these systems and the resulting data to support continuous instructional improvement; and

(iii) Make the data from instructional improvement systems (as defined in this notice), together with statewide longitudinal data system data, available and accessible to researchers so that they have detailed information with which to evaluate the effectiveness of instructional materials, strategies, and approaches for educating different types of students (*e.g.*, students with disabilities, English language learners, students whose achievement is well below or above grade level).

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note the location where the attachment can be found.

Recommended maximum response length: Five pages

C.3. Using data to improve instruction

NC is already working to increase the use of instructional data tools in classrooms and the effectiveness with which teachers and principals use these tools to improve student outcomes. Our RttT plan will ensure that every teacher and instructional leader in NC:

- Has ready access to a high quality instructional improvement system containing assessment and data analysis tools and guidance in how to use these tools to improve instructional practices;
- Has professional development that is sufficient to prepare him or her to use the instructional improvement system to address students instructional needs effectively; and
- Develops increasingly effective instructional and leadership practices that use data to improve student outcomes.

Our plan will also build on NC's strong history of providing data for researchers (see Sections C1-2, above) by ensuring that research-relevant data are made easily accessible through the State Longitudinal Data System and the NC Education Research Data Center (Duke Data Center) at Duke University.

C.3.i. Increase the acquisition, adoption, and use of instructional improvement systems

Current Efforts in NC

The effective use of data to improve teaching and learning is so essential to Governor Perdue's *Career and College: Ready, Set, Go!* education reform plan that the Governor has made expanding this capability one of her primary budget priorities in the midst of a very difficult State fiscal environment. NC has recently conducted pilot programs in the use of instructional improvement systems in elementary reading and mathematics. A key part of the pilots has been targeted professional development to prepare teachers and administrators to use the systems effectively. More than 400 schools in NC have participated in piloting the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) early reading diagnostic assessment. During the past year, a selected set of pilot schools have used the Wireless Generation "mClass" technology platform to enhance teachers' use of the DIBELS diagnostic reading assessments. This platform provides teachers with a handheld device to make real-time data collection during classroom activities easier, faster, and more accurate. The data are then synchronized with Web-based software, which provides analyses and reports at the individual student, group, class, grade, and school levels. As part of the system, teachers also have access to web-based tools to help them apply

the data to individualize instruction; administrators similarly have access to tools to track overall progress, review program effectiveness, and inform decisions about instructional resources and strategies. The Wireless Generation system also supports communicating effectively with parents and providing individualized instructional activities for use at home. Another set of pilot sites have been using the *Assessing Math Concepts (AMC) Anywhere* diagnostic assessments, which use similar technology to guide teachers to diagnose students' mathematics understandings and skills, and use the data to develop effective instructional strategies and to differentiate instruction.

The response of students, teachers, administrators, and parents to these technology-supported instructional improvement systems have been very positive, and the early data, along with prior data on the use of these same systems, suggests positive impact on student achievement (detailed analysis will be conducted on end-of-grade test data to be available in June). The positive response in NC has led to Governor Perdue's recommendation that the General Assembly appropriate new funds for the coming year to provide these instructional improvement systems and the related professional development for all elementary school teachers in the lowest achieving elementary schools throughout the State.

Moving Forward: A Statewide NC Instructional Improvement System

To capitalize on the lessons learned in the above pilots, as part of our RttT plan we propose to extend the use of such instructional improvement systems to more grade levels and subject areas, and to all schools in the State, through the provision of a statewide Instructional Improvement System that will yield specific instructionally relevant data for students, parents, teachers, and principals. All NC educators will be able to use the System to characterize accurately individual student learning at different points in time (*e.g.* today, the past month, this semester, this year), levels of specificity (about the entire course of study, units, individual standards, unpacked sub-standards or pre-requisite knowledge or skills) and levels of aggregation (about individual students, groups of students, students in particular buildings, grade-levels or teacher's classes). This comprehensive capability will allow teachers and leaders to develop an increasingly reliable understanding of what students know and are able to do, and to act on that knowledge to improve student outcomes.

All NC teachers and principals will have online access to the Instruction Improvement System via the statewide Learner Management System, a technology platform delivered through the reliable, efficient, and cost-effective Education Technology Cloud (see Section A2). In addition to the cost-efficiencies provided by this approach, having a common statewide System will simplify efforts to provide professional development to all teachers and principals regarding the use of the System tools. While the System will be provided centrally, however, it will enable local adaptations and extensions, such as the selection of specific sets of diagnostic items to use throughout a school or the addition of assessment items to match local curricula. This flexibility will be addressed as part of the core professional development regarding how to use the System.

NC also will endeavor to make the core functionality of the System universally accessible. NC is a member of the Accessible Portable Item Project multi-state consortium, which is developing technology standards for online assessment items and meta-tags. Working within the Accessible Portable Item Project standards and with partner states, NC is committed to developing technology-based assessments that can be: delivered via a wide range of technology platforms, from handhelds to laptops; shared across states to enable collaboration and cost-sharing of development; and enable adaptations to make items accessible for students with special needs.

The NC Instructional Improvement System will provide assessment tools that yield data for the following four distinct instructional purposes:

- ***Daily assessments embedded in instructional activities***. Creating a classroom environment in which students receive regular and specific feedback is a key to improving student outcomes. The System will support a variety of types of assessments designed to be embedded in instructional activities. For example, handheld tools and content-specific software like the two described above in the pilot programs will be supported to enable teachers to efficiently record student outcomes in real time. In classrooms equipped with such response tools and a large display device, the System will support activities in which the teacher quickly collects and displays the array of student responses to a question or problem to check students' progress or to stimulate discussions. The System will also enable teachers and students to create digital portfolios of student work (using digital cameras or scanners when

the work is done on paper). In all cases, the System will enable teachers to collect ongoing information to review at the student, group, or class level to track progress, plan instruction, and provide information to students and their parents.

- ***Diagnostic assessment based upon learning trajectories***. In order to meet the needs of students - particularly those who are underperforming - teachers need information that provides insights about the students' progress in mastering key concepts and skills, and about student misconceptions that may be interfering with their progress. In other words, teachers need true *diagnostic* information that will enable them to help individual students mitigate their learning difficulties. In the RttT project, we will create a system of diagnostic assessments in mathematics and reading that builds upon the research on cognitive learning trajectories, *i.e.*, the sequences in which students effectively learn a subject area across grades and the concepts and skills that most commonly cause difficulties for students (Heritage, 2008; Confrey, 2009). This component of the Instructional Improvement System will be designed for teachers to use periodically, most often with students who are having difficulties, to pinpoint why a student is struggling and to make individualized instructional decisions based on an accurate, detailed student learning profile. This diagnostic assessment tool will be particularly powerful with students who are significantly below grade-level expectations and for whom grade-level tests are inadequate to provide the diagnostic information teachers need.
- ***Curriculum Monitoring***. The System will support regularly checking student assessment data against instructional goals and expected curriculum pacing. The System's curriculum monitoring tools will enable teachers to periodically benchmark the overall progress of individuals, groups, and classes toward mastering the overall standards for the subject and grade. Similarly, these tools will enable instructional leaders to benchmark progress by class, teacher, grade, and subject area, to identify exemplary teachers and effective practices and to identify struggling teachers and provide them with coaching or other supports. These tools will also allow educators to engage students in achieving their learning goals by giving them access to their own progress data and to inform parents about their children's progress, accomplishments and areas for growth.
- ***Summative Assessment for Teacher Planning and Student Placement***. The System will incorporate summative assessment data, based on statewide end-of-course assessments and other data, to inform overall planning at the classroom and school level. This

component will use the Educator Value Added Assessment System (EVAAS). As noted in Section C2 and described in greater detail in Section D2, EVAAS is an analytical tool that uses up to five years of historical summative test data to calculate a precise measurement of individual student progress over time, as well as a reliable diagnosis of opportunities for growth. EVAAS can produce reports that predict individual student success on State end-of-grade and end-of-course summative tests, reveal patterns in subgroup performance, and estimate the impact of teachers and schools on student achievement. With this tool, teachers are able to assess student summative assessment data from prior years to see patterns of achievement, growth and areas of potential difficulty, and to plan for grouping students and the effective use of teacher aides and classroom volunteers. EVAAS offers teachers a meaningful look into their own effectiveness with individuals, sub-groups of students, and whole classes. EVAAS is also being used to inform student placement decisions. For example, an EVAAS predictive analysis can be used to estimate the probability that a student is prepared to be successful in Algebra I. EVAAS analyses have shown that 96% of the students predicted to be prepared for success in Algebra I received a passing grade. A related analysis showed that many students who are prepared for success in Algebra I are not enrolling in it, and that this is disproportionally true for minority students. These analyses are leading to an increase in the number of students taking Algebra I (Rivers, 2010). This type of analysis is now being extended to science and AP courses.

Finally, the Instructional Improvement System will provide teachers and principals with the capability to create customizable dashboards that will efficiently and accurately transform the various assessment data into useful information. The dashboard interface will:

- Support educators in developing an increasingly clear, reliable, and actionable picture of individual student performance and change in performance over time;
- Improve understanding of data by allowing users to view different data concurrently displayed in adaptable, easy-to-understand, and meaningful ways;
- Facilitate data-based discussions within and among professional learning communities;

- Set goals for changes in performance expected over time and monitor progress towards the achievement of those goals.
- Support teachers' classroom problem-solving and link to interventions or instructional resources connected to specific problems revealed in the student assessment data, as outlined in Section B3; and
- Draw on other centralized State data collections, to expand analysis capabilities by linking assessment data to key demographic, disciplinary, attendance and other non-academic achievement data

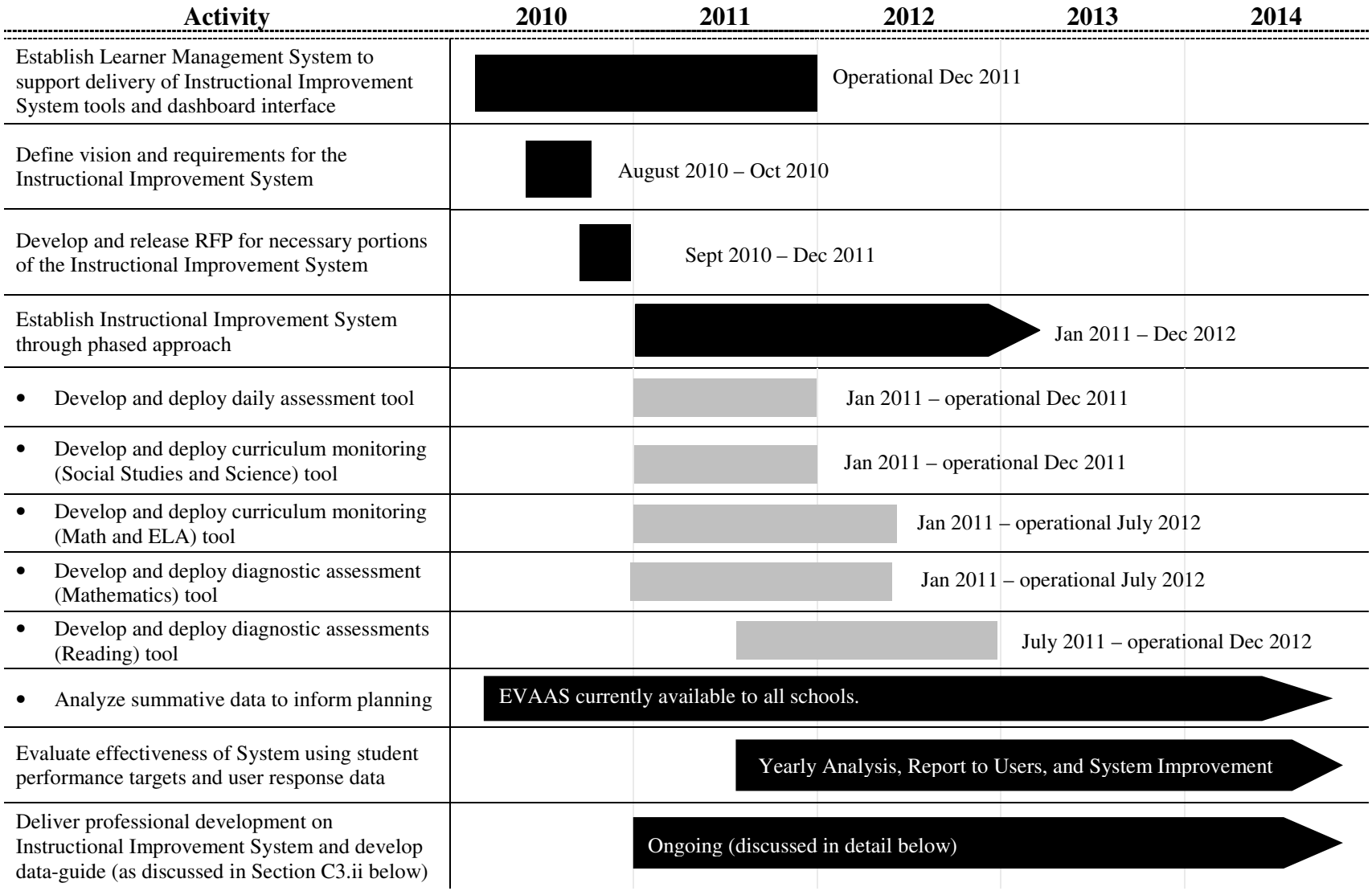
Implementation Timeline and Responsible Parties

NCDPI will implement the instructional improvement system through a phased approach that is interdependent with the development and rollout of the other technology components included as part of the RttT plan (see Section A2). Each component will focus on certain specific content areas, as shown below in Tables 12 and 13.

Table 12: Components of Instructional Improvement System

Component	Subject Areas Planned
Daily Assessments Tools	K-12 All subject areas
Diagnostic Assessments Tools	K-8 Mathematics and Reading. NC will focus the work to define learning trajectories and developing diagnostic assessment items to K-8.
Curriculum Monitoring Assessments Tools	K-12 Reading/English Language Arts, Mathematics, Science and Social Studies.
Summative Assessment Tools	All subject areas with a End-of-Grade or End-of-Course assessment and for all students with at least three years of historical performance data

Table 13: Instructional Improvement System – Timeline



As described in Section B, NC is also part of the Smarter Balanced Assessment Consortia. If NC competes successfully for the state RttT grants and the consortia assessment grant, we will ensure that the development of the English Language Arts and Math-related content in our Instructional Improvement System does not duplicate the efforts of the consortia, but rather supports and supplements that work.

NC will evaluate the effectiveness of the Instructional Improvement System annually. The evaluation will incorporate summative student performance data. In addition, NCDPI will use analyses of uses within different LEAs, schools, grade levels, and content areas, and System usage metrics and user-feedback to guide ongoing improvements to the System.

C.3.ii. Support participating LEAs schools that are using instructional improvement systems in providing effective professional development

NC will engage in a two-part effort to ensure teachers and leaders can and do use data to improve instruction effectively. The first step is to develop an in-depth guide that clearly defines excellence in data use, and the second step is to train educators, both face-to-face via a cohort of Professional Development Leaders and through the use of online learning modules, to use data effectively to improve outcomes. These steps are described in more detail below.

Develop a data-use guide and in-depth support materials for school leaders, PLCs and individual teachers defining excellence in the use of data to improve instruction.

To build teacher and principal capacity to use data, NC will create a data-use guide that illustrates, using sample instruction grounded in research and vignettes from NC schools, a clear, coherent vision and detailed examples of effective data use. The guide will address data use for school leaders, professional learning communities, and teachers; and focus on the ways in which data can inspire data-drive decision-making, creative problem-solving, and scientific research. The vision in the guide will be grounded in a belief that a teacher's actions profoundly and measurably influence student outcomes.

The data-use guide will include vignettes from schools and teachers who have significantly increased student achievement while transitioning to a data-driven environment. The guide will utilize audio and video, and student and teacher work samples. NCDPI and institutions of higher education will work with practitioners in developing the guide to ensure that it balance research and practice. The guide will provide the content backbone and framework for subsequent statewide professional development about how to use data to improve student outcomes. Some of the key professional knowledge and skills that will be exemplified in the guide appear in the Table 14.

Table 14: Data Use Guide – Sample Knowledge and Skills

Teachers should be able to:

- Use goal-setting and progress monitoring within the classroom to motivate student achievement.
- Connect students to their own data and help them reflect and make meaning from it.
- Use data to identify the most pressing problems or gaps in student performance and take thoughtful, aligned action as a result.
- Use data to reassess and reflect to determine whether actions have had the desired outcome on student performance.
- Continually evaluate the usefulness of assessment data for classes and groups of student and individuals, and gather more and differentiated assessment data when necessary.
- Monitor progress over-time and identify sub-groups that struggle and skills or content that are commonly misunderstood.
- Use data to communicate with parents about student progress.

Professional Learning Communities (PLC; see also Section D5) should be able to:

- Use goal-setting and progress monitoring within the PLC to motivate teachers' use of data.
- Develop common assessments and backwards plan pacing guides, units and lessons.
- Identify different outcomes across different teachers' classes and promote peer observation.
- Develop data-based peer coaching models.
- Adjust curricular materials and instructional interventions to meet student needs.

School Leaders should be able to:

- Use goal-setting and progress monitoring within schools to establish staff expectations for excellence.
- Coach and provide feedback to individual teachers informed by current and longitudinal views of data.
- Differentiate support for teachers and monitor pacing.
- Determine the effectiveness of curriculum and make adjustments based on available resources.
- Communicate with parents, school boards, and the community.
- Place teachers in classes, subjects, and grade-levels where they will be most effective or are most needed.

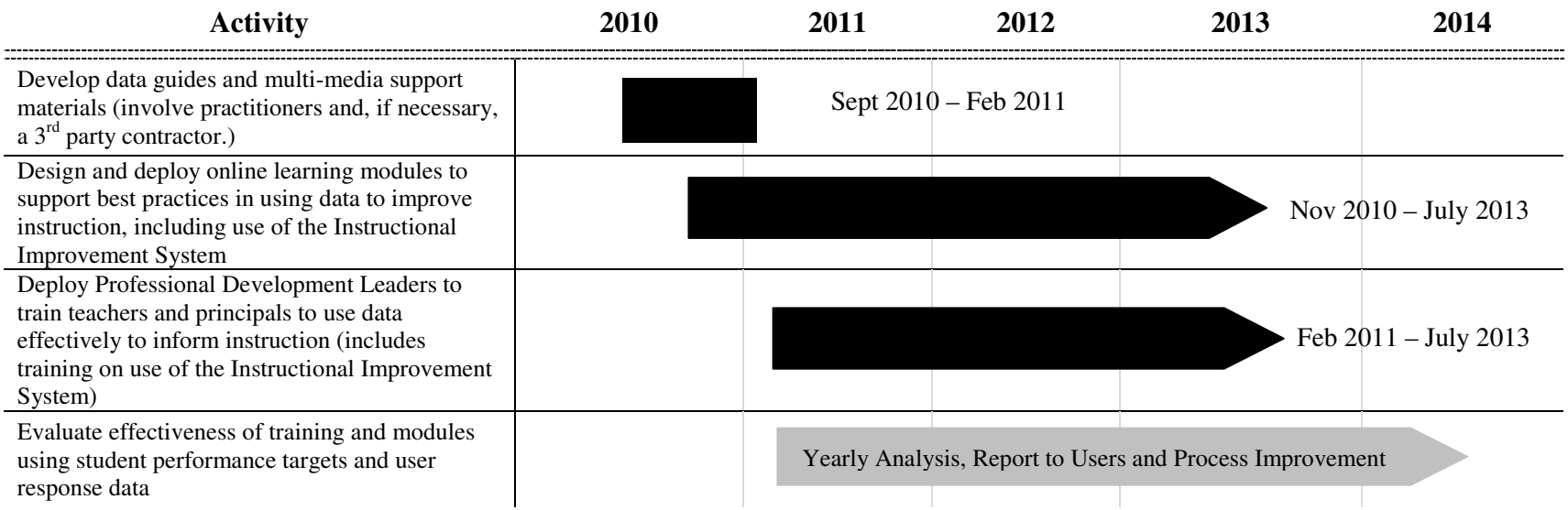
Deploy state-sponsored Professional Development Leaders and design online learning modules to train local teachers and principals to use data effectively to improve instruction

As part of the comprehensive professional development detailed in Section D5, NC will deploy a set of Professional Development Leaders who will serve as data coaches to promote and provide professional development on the effective uses of the statewide Instructional Improvement System. Training teachers and principals to use this System effectively will also be a key component of the preparation and induction programs described in Section D3 and D4, and will be integrated throughout the professional development activities described in Section D5.

Implementation Timeline and Responsible Parties

NCDPI, in partnership with institutions of higher education and PK-12 practitioners, will develop the data-use guides. The Professional Development Leaders discussed in Section D5 will drive design and deployment of modules and face-to-face training regarding use of data to improve instruction. Table 15 illustrates the timeline for completing these activities.

Table 15: Development of Data Use Guides – Timeline



C3.iii. Ensure that data from the instructional improvement systems are made easily accessible to researchers through the State Longitudinal Data System

Since North Carolina's Instructional Improvement System will be centralized, we will be able to seamlessly link the data to the CEDARS longitudinal data system via unique student and staff identifiers and make these data available to researchers in accordance with the Family Educational Rights and Privacy Act (FERPA). This will allow researchers an unprecedented insight into what works in classrooms and will provide NC with valuable information to continually improve the comprehensive assessment system. Through collaboration with researchers, including our current partners at the Duke Data Center, at UNC, and in private universities and colleges, NC will determine key data sets that may be of the most interest for research. NCDPI will then make those data sets available in easy-to-use, linkable format on a yearly basis. In doing so, we will improve upon our existing procedure, through which

for the past decade, the Duke Data Center has made all relevant NC data available to educational researchers both in NC and nationally.

Implementation Timeline and Responsible Parties (Table 16)

NCDPI will be responsible for coordinating and responding to requests for data from the Instructional Improvement System.

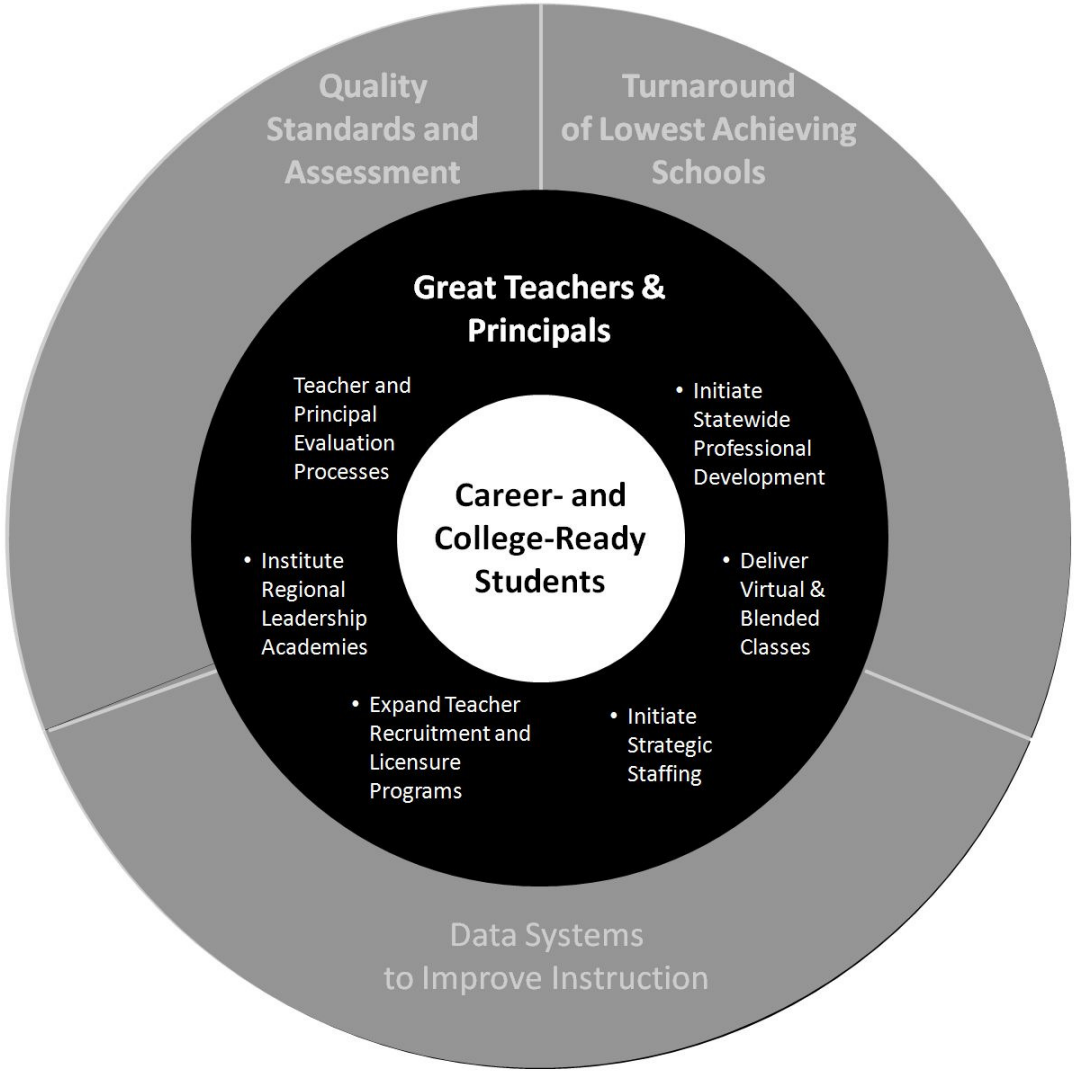
Table 16: Researcher Access to Instructional Improvement System – Timeline

Activity	2010	2011	2012	2013	2014
Ensure RFP for Instructional Improvement System and Learner Management System include the ability to link Instructional Improvement System data to statewide longitudinal data system	Sept 2010 – Dec 2011				
Develop Instructional Improvement System with linking capabilities	Jan 2010 – Dec 2012				
Release key data sets of most interest/use to researchers on a yearly basis.	Starting July 2012				
Make data from Instructional Improvement System available to researchers in compliance with FERPA.	Starting July 2012				

Evaluation

Specific questions, data sources, and timelines governing the evaluation of this process are included in Appendix 7.

(D) Great Teachers and Leaders ***(138 total points)***



Overview for Section D

NC knows that to reach our primary goal of high student achievement statewide, we must have a great teacher in every classroom and a great principal leading every school. Strengthening the education workforce is thus our highest reform priority and the core of our RttT plan (see Section A1). NC has invested significant time and resources to develop a comprehensive, integrated, data-driven approach for strengthening the education workforce. In this section of our RttT proposal, we will explain our approach in detail. First we will present an overview of how we have identified the most pressing needs. Then, in Sections D1 through D5, we will present specifics about programs and initiatives – both current and planned or proposed – that are designed to address these needs.

Principles of the NC Approach

The key principles guiding NC's approach to strengthening the education workforce are as follows:

- ***Coherence*** – NC will build upon the NC Educator Evaluation System (described in Section D2) – both the standards for teachers and principals and the evaluation rubrics and processes – to provide a set of consensus goals and metrics across the entire continuum of teacher and principal development and support programs. These common goals and metrics will help build shared vision across the organizations involved, and bring coherence to the overall continuum of program offerings.
- ***Coordination*** – NC also will continue to build coordination among LEAs, NCDPI, colleges and universities, and non-profit organizations (such as Teach for America and the NC Teachers Academy) that deliver that vast majority of the State's teacher development and support. Based on lessons learned from years of innovation and evaluation, we are developing an integrated approach to teacher and principal preparation, placement, induction, retention, evaluation, professional development, and promotion, in which all of the relevant organizations will have shared and coordinated responsibility. For example, LEAs and colleges of education will align and coordinate preparation and induction programs, so that future teacher pre-service preparation will be linked to LEA needs and practices, and new teacher induction programs will build upon their pre-service preparation.

The 16-campus UNC system has made it a high priority to develop regional university-LEA partnerships and most of the 115 LEAs in NC already are actively involved (see map in Appendix 22; LEAs may choose to use their NC RttT funding to establish or extend existing partnerships with UNC campuses or independent colleges and universities.).

- ***Choice*** – NC is expanding the range of approved alternative teacher and principal licensing programs (see Sections D2 and D3) to address the needs of different LEAs and schools (*e.g.*, those in urban versus those in rural areas) and the different needs of individuals who are interested in becoming teachers or principals.
- ***Data-Informed Decision-Making*** – NC continues to be committed to using data to inform decisions, both about what education workforce issues are most important to address and about the most effective ways to address them. Further information about the data used to inform the NC RttT plan is provided below. In addition, each RttT initiative will be evaluated to determine its impact and effectiveness, which will inform program improvements and future decisions.
- ***Evaluation*** – NC will evaluate programs and initiatives continuously and use the evaluation results to improve existing programs, expand those that are successful and, when necessary, close those that are not producing the desired results.

Data Informing the NC RttT Plan

NC is very fortunate to have extensive data to inform our plans for strengthening the educator workforce. The data include the following:

- Data collected annually by NCDPI regarding teacher and principal hiring, retention, and shortages, by discipline and by grade level, at the state, LEA, and school levels (see Appendices 23, 24, and 25 for excerpts from *North Carolina's Equity Plan for Highly Qualified Teachers*, 2009; *Teacher Vacancy Report*, 2009; and *Teacher Turnover Report*, 2008);

- Data collected annually by UNC and the NC Independent Colleges and Universities regarding the numbers of teachers prepared in each licensure area, as reported annually in the Federal Title II Teacher Quality report and in UNC's annual accountability report on the productivity of initially licensed teachers;
- Detailed databases available from NCDPI and NCES (National Center for Educational Statistics) containing data on student demographics and achievement; teacher preparation, licensure, and compensation; and many other relevant variables.
- Ongoing results from a major research project coordinated by UNC about the effectiveness of teacher preparation programs (Henry *et al*., 2010; see summaries below and in Section D4; excerpts from the full report are included in Appendix 26);
- A detailed analysis of NC teacher retention data, including a review of the research about factors that impact teacher retention rates and an NC-specific analysis about how to best apply the research (Rieman *et al*., 2007);
- Research conducted by the Urban Institute on the effectiveness of Teach for America teachers in NC (Xu *et al*., 2007);
- Teacher Working Conditions Survey data, collected every other year for the past eight years, with nearly 89% of NC public school educators (teachers and principals) completing the most recent survey, administered in 2010. This survey provides data about factors that impact teacher induction, development, retention, and job satisfaction.
- Statewide data about student demographic trends, which help inform future planning at the State and local levels about changes in the need for teachers with certain skill sets (*e.g*., to address an increase in students with Limited English Proficiency);
- NAEP data, statewide student achievement data, and teacher evaluation data, which provide information about areas in which professional development and instructional improvement systems are needed.

NC Education Workforce's Highest-Priority Needs: Developing Strong Teachers and Principals

Based on our analyses of the data and research listed above, and additional information from our direct work with teachers and administrators throughout the State, we have identified the NC education workforce's highest priority set of needs. Working from this set, we have then defined a coherent, coordinated, data-driven strategic plan for improvement, the elements of which are the initiatives proposed throughout Section D. The tables below illustrate the needs, as defined by data, and provide a guide to the NC RttT initiatives that address each need. The first table (Table 17) shows needs relevant to teachers; the second table (Table 18) shows needs relevant to principals.

Table 17. Overview of NC Teacher Workforce Needs

Need Area	Sample Relevant Data Used for Decision-Making	NC RttT Section
Recruitment and Preparation 1. Increase the quantity and improve the quality of individuals entering preparation for the teaching profession. a. Provide alternative licensure pathways to attract high-caliber individuals with different backgrounds, needs, and interests. b. Improve pipeline for high-need content and specialty areas. c. Recruit individuals interested in teaching in high-need schools in rural and urban areas. 2. Ensure that all preparation programs provide their participants with adequate preparation to become effective teachers with practical preparation matched to the content, grade, and context in which they will teach.	In 2009, there were 2,062 new teachers via lateral entry and 1,143 new teachers via direct licensure (NCDPI licensure database). Students of alternatively licensed teachers significantly underperform overall, compared to students taught by teachers who completed preparation programs at a UNC system school. Students of more selectively chosen Teach for America teachers, on the other hand, outperform their UNC-trained colleagues in several areas, including high school math, English, and science, as well as middle school math (Henry *et al*., 2010). Hardest licensure areas to staff for each of the past three years were grades 9-12 mathematics (shortages reported by 93 LEAs for 2008-9); 9-12 Science (68 LEAs); Special Education (62 LEAs); 6-9 Mathematics (54 LEAs); and 6-9 Science (42 LEAs) (*Teacher Turnover Report*, 2009). In addition, EVAAS measures of effectiveness based on 2008-09 State test data show that high-minority/high-poverty schools are staffed by a much greater proportion of ineffective teachers in all tested subjects and at all levels than are low-minority/low-poverty schools. The differences are, for example, 34% vs. 7% for science teachers, and 17% vs. 6% for Algebra I teachers. Three of the fifteen UNC preparation programs produce teachers in certain licensure areas (high school math, middle school math, middle school science) whose students underperform, compared to students of teachers from non-UNC programs; nine of the fifteen preparation programs produce teachers in certain licensure areas whose student outperform those of teachers from other preparation tracks (Henry *et al*., 2010, provided in Appendix 26).	D1, D4
Equitable Distribution 3. Recruit new teachers and experienced effective teachers to high-need schools in rural and urban areas.	Low-performing urban schools have the highest proportion of inexperienced (<=3 years) teachers, at 29%; inexperienced teachers make up only 19% of the teaching population at higher-performing schools. Low-performing schools employ a higher proportion of alternatively licensed teachers (13% vs. 10% in higher-performing schools). National Board of Professional Teaching Standards (NBPTS) certified teachers gravitate toward higher-performing schools (10% in higher-performing schools vs. about 5% in lower-performing schools). In critical licensure areas such as math, science, ELL, and special education, the difference in the presence of NBPTS-certified teachers is even greater.	D3

Need Area	Sample Relevant Data Used for Decision-Making	NC RttT Section
Induction and Retention 4. Provide strong induction support to help teachers succeed during their early years. 5. Retain qualified teachers, particularly in high-need schools.	While nearly all new teachers (93%) are assigned a mentor, nearly half (47%) do not have time during the day to meet with their mentors, nearly half did not teach the same content as their mentors (49%), nearly half did not teach the same grade level (48%), and one in four (26%) weren't in the same building. One in 8 indicate that they received no additional support as new teachers (Teacher Working Conditions Survey results [TWC], 2010). Low-achieving schools experience high turnover rates; with a three year turnover rate of 56% in low performing urban schools and 50% in low performing rural schools. As a result, STEM-licensed teachers in low-performing schools are less experienced than their colleagues in higher-performing schools (DPI licensure database).	D3, D5
Evaluation 6. Provide an equitable, reliable, valid, and transparent approach to teacher evaluation, in which effectiveness re student achievement growth is a critical factor. 7. Use teacher evaluation data to (a) inform individual professional development plans; (b) identify ineffective teachers in need of remediation and possible dismissal; and (3) identify highly effective teachers who could be candidates to become Teacher Leaders.	The new NC Educator Evaluation System has been implemented in about 50% of NC LEAs. Evaluations with this system yield a normal distribution, which implies that the system successfully provides information that distinguishes different levels of teacher performance. Most teachers (88%) thus far indicate that they believe they are assessed objectively, that they receive helpful feedback (84%), and that the evaluation process is consistent (85%) (TWC, 2010).	D2
Professional Development 8. Provide effective, ongoing, job-embedded PD for all teachers, addressing needs defined by both individual evaluations and by state/district/school initiatives.	More than half of all teachers report needing PD in special education (57%), differentiating instruction (60%), working with limited English proficiency students (50%), and closing achievement gaps (57%), reflecting the State's greatest academic disparities. In addition, fully 46% report needing additional PD in reading, and 63% want more PD geared at integrating technology into their instruction. Most teachers agree that professional development available to them is data-driven (85%), but over one-third of them (35%) report that professional development available to them is not differentiated to meet their specific needs (TWC, 2010).	D5

Table 18: Overview of NC Principal Workforce Needs

Need Area	Sample/ Example Relevant Data Used for Decision-Making	NC RttT Section
Recruitment and Preparation 1. Increase the quantity and improve the quality of individuals entering preparation for education administration. a. Provide alternative licensure pathways to attract high-caliber individuals with different backgrounds, needs, and interests. b. Recruit individuals interested in leading high-need schools in rural and urban areas. 2. Ensure that all preparation programs provide their participants with adequate preparation to become effective principals with practical preparation matched to the grade levels and contexts in which they will lead.	In 2009, there were 60 new principals via direct licensure (NCDPI licensure database), but only 9 candidates were enrolled in the state's only Innovative and Experimental Program for School Administrators (though 14 more will join the program in June 2010).	D1, D4
Equitable Distribution 3. Recruit new principals and experienced, effective principals to high-need schools in rural and urban areas.	Principal experience as an educator currently is balanced across low-performing and higher-performing schools, as well as across urban and rural schools. Principals with higher degrees (doctoral degrees) are more common in urban, higher-performing LEAs than rural, higher-performing LEAs (11% vs. 6%), and this pattern is similar for lower-performing, urban (9%) and rural (7%) LEAs.	D3

Need Area	Sample/ Example Relevant Data Used for Decision-Making	NC RttT Section
Induction and Retention 4. Retain qualified principals, particularly in high-need schools.	In 2009-10, nearly 1 in 4 principals (22%) were new to the schools they were leading. Support for principals was high, however, with 94% indicating that they receive the support they need from their central offices (TWC, 2010). For those principals who were provided with mentors (48% of all principals, a proportion sufficient enough to cover all novice principals), most indicate that they receive the mentoring help they need, including in the areas of instructional leadership (90%), school improvement planning (88%), and teacher remediation (95%). Fewer than half, however (46%) had opportunities to visit and observe in their mentors' schools, and 41% were not observed by their mentors (TWC, 2010).	D3, D5
Evaluation 5. Provide an equitable, reliable, valid, and transparent approach to principal evaluation, in which effectiveness re student achievement growth is a critical factor. 6. Use principal evaluation data to (a) inform individual professional development plans; and (b) identify ineffective principals in need of remediation and possible dismissal	In 2009-10, the first year in which all principals were evaluated using the new NC Educator Evaluation System, a large majority of principals (93%) indicate that they believe they are provided with constructive feedback that helps them improve their performance (TWC, 2010).	D2
Professional Development 7. Provide effective, ongoing, job-embedded PD for all principals, addressing needs defined by both individual evaluations and by state/district/school initiatives.	Significant proportions of principals statewide indicated the need for more professional development in several areas. Forty percent or more indicated PD needs in the areas of student assessment, teacher evaluation, teacher remediation, and data-driven decision-making, all of which are critical components of the State's RttT plans and the State Board's priorities. Professional development in instructional leadership was not far behind, with over one-third (36%) requesting additional PD in this critical area. More than one-fourth of all principals (27% think that there are insufficient resources available for their professional development (TWC, 2010).	D5

(D)(1) Providing high-quality pathways for aspiring teachers and principals *(21 points)*

The extent to which the State has—

(i) Legal, statutory, or regulatory provisions that allow alternative routes to certification (as defined in this notice) for teachers and principals, particularly routes that allow for providers in addition to institutions of higher education;

(ii) Alternative routes to certification (as defined in this notice) that are in use; and

(iii) A process for monitoring, evaluating, and identifying areas of teacher and principal shortage and for preparing teachers and principals to fill these areas of shortage.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (D1i), regarding alternative routes to certification for both teachers and principals:

- A description of the State's applicable laws, statutes, regulations, or other relevant legal documents, including information on the elements of the State's alternative routes (as described in the alternative route to certification definition in this notice).

Evidence for (D1ii), regarding alternative routes to certification for both teachers and principals:

- A list of the alternative certification programs operating in the State under the State's alternative routes to certification (as defined in this notice), and for each:
    - The elements of the program (as described in the alternative routes to certification definition in this notice).
    - The number of teachers and principals that successfully completed each program in the previous academic year.
    - The total number of teachers and principals certified statewide in the previous academic year.

Recommended maximum response length: Two pages

D.1. Providing high-quality pathways for aspiring teachers and principals

D.1.i. Legal, statutory, or regulatory provisions that allow alternative routes to certification

NC law and State Board of Education (State Board) policy support alternative routes to certification for teachers and principals. Routes include programs operated independently of Institutions of Higher Education.

NC General Statutes and State Board policy support several alternative routes to licensure for teachers and principals.[6] G.S. 115C-296 (Board Sets Certification Requirements) grants full control of licensure decisions to the State Board and *explicitly supports the establishment of alternative routes to licensure*. Relevant State Board policies include:

- TCP-A-001 (Policies on General Licensure Requirements), Sections 1.70-1.90, which describe the alternative paths to licensure;
- TCP-A-002 (Policies on Routes to Licensure), which describes requirements for those paths;
- TCP-A-004 (Policies on the Beginning Teacher Support Program), which describes mentoring requirements for new and lateral entry teachers, an annual report that requires LEAs to submit information about supports provided to lateral entry teachers, and standards for mentor selection and participation;
- TCP-A-014 (Policies on Licenses for Non-Teacher Education Graduates), which details procedures for obtaining lateral entry licenses; and
- TCP-B-006 (Policy Defining Innovative/Experimental Programs for School Administrator Preparation), TCP-B-010 (Policy Defining Innovative/Experimental Programs for Lateral Entry Teacher Licensure), and TCP-A-018 (Policy Governing Reciprocity in Licensure), which declare the State Board's ability to approve additional alternative pathway programs that operate independently from institutions of higher education.

[6] In 1993, the State Board formally changed all credentialing references in NC from "certification" to "licensure."

A recent act of the NC General Assembly, Session Law 2009-451, Section 7.21.(a) (Remove Barriers to Lateral Entry into Teaching), directs the State Board to further reduce barriers to entry; progress toward that goal is described below. Appendices 27, 28, and 29 provide more complete summaries of these policies and statues.

D.1.ii. Alternative routes to certification that are in use

NC provides prospective teachers and principals with several alternative routes to certification, some of which are managed by non-IHE providers (including LEAs themselves). Alternative licensure in NC meets each of the USED-defined elements of alternative routes. NC has provided these multiple pathways for several years, and the number of teachers and principals utilizing them has increased steadily.

Alternative Routes to Licensure for Teachers and Principals

NC already offers prospective teachers and principals several alternative pathways that lead to the same level of licensure achievable through traditional pathways. Approximately 48% of all teachers in NC hold at least one license earned through an alternative route[7]; about 3% of all active principals were licensed through an alternative route. Alternative licensure in NC meets each of the USED-defined elements of alternative routes (Table 19), and Appendix 30 provides details about the number of teachers and principals licensed through each approach. Summary information about alternative pathways is provided below.

[7] Many teachers hold multiple licenses for teaching different subjects, grade levels, and specialties, so the license earned through an alternate route may not be the teacher's "primary" license or license of record for a given assignment.

Table 19: Characteristics of Alternative Routes to Certification in NC

	Teachers		Principals	
	Meets Criterion	**Explanation**	**Meets Criterion**	**Explanation**
Various types of providers	✓	State Board Policy allows for innovative and experimental lateral entry programs; four in operation	✓	State Board Policy allows for innovative and experimental lateral entry programs; one in operation; one to launch in June 2010; several in development
Selectivity	✓	Lateral entry candidates must meet or exceed a combination of grade point average, coursework, and/or Praxis I and II (licensing exams) scores (detailed below) prior to beginning teaching	✓	Current program is highly selective; accepted only 9 of 180 applicants for the first cohort
Supervised, school-based experiences and ongoing support	✓	All LEAs provide multiple supports (Table 20, below); state provides support in Turnaround LEAs (Section E2)	✓	Participants complete a year-long residency, paired with a highly skilled, successful principal as a mentor
Limited coursework or test-out option	✓	Limited coursework required for lateral entry; no coursework required for experienced Teach for America teachers (see below); no test-out option available	✓	Limited coursework required – includes intensive 4-week program, along with academic studies to enhance leadership throughout year
Same level of certification or license	✓	Candidates begin with an Initial license – the same license as a traditionally prepared teacher; eligible to apply for a Continuing license after completing program requirements and three years of teaching	✓	Candidates granted the same administrator license as those who go through traditional preparation programs

Lateral Entry for Teachers

NC's current lateral entry pathways enable qualified candidates who are not licensed but who hold a bachelor's degree and already have been hired by a school system to obtain a provisional teaching license. The State Board grants this license under the condition that, over the ensuing three years, the candidate will complete a teacher education program through an institute of higher education (IHE), a Regional Alternative Licensing Center (see below), or an LEA lateral entry program (see below). In addition to holding a bachelor's degree, a candidate for lateral entry must meet at least one selection criterion in each of two areas:

- ***Either*** hold a degree (from a regionally accredited institution) in the area in which he or she is seeking licensure ***or*** have 24 semester credit hours in a core subject area[8] ***or*** have a passing score on relevant Praxis II or ACTFL tests; ***and***
- ***Either*** have an overall GPA of 2.5 ***or*** a passing score on Praxis I and a 3.0 GPA in the major or the senior year or in 15 semester hours completed after earning the degree and within the last five years ***or*** at least five years of relevant experience.

Candidates who have five or more years of experience considered relevant by an employing LEA and who satisfy testing requirements for a given licensure area within their first year of teaching are eligible for an initial license[9] after only one year if they complete a series of prescribed professional development modules and are identified by the employing LEA (via the Teacher Evaluation Process; see Section D2) to be a proficient teachers.

Lateral entry teachers are offered similar, but often more intensive, support services during their first years of teaching. Among other things, LEAs that employ lateral entry candidates are required to provide them with the following supports.

1. *Orientation*: a two-week, pre-work orientation that includes modules on lesson planning and classroom organization and management;

[8] There are some exceptions to this rule with respect to teachers of elementary students, exceptional students, and ESL students.

[9] The initial license offered to teachers in NC is the Standard Professional 1(SP1) License. After three years with an SP1 license, a teacher may apply for a Standard Professional 2 (Continuing) License, which allows a teacher to teach on an ongoing basis.

2. *Assessment Overview*: an overview of the NC testing and accountability program (including the NC Standard Course of Study and end-of-course/grade testing);
3. *Mentor*: assign a mentor on or before the first day on the job;
4. *Optimal Working Conditions*: optimal conditions with limited outside responsibilities, similar to those for novice teachers who have come through traditional pathways to licensure;
5. *Feedback*: regular, focused feedback for improving instruction;
6. *Assistance Accessing Training*: assist in accessing prescribed course work and professional development opportunities; also, a formal means of identifying and delivering needed services and technical assistance; and
7. *Formal Feedback*: at least four observations of lateral entry teachers per year

LEAs also are required to provide an annual report to DPI that includes information about the need for lateral entry teachers, the type of support services provided, and the types of difficulties lateral entry teachers faced during their first three years teaching. Findings from the most recent annual report on support services provided to lateral entry teachers indicate that 100% of LEAs provide at least 3 of the services mentioned in the annual report. In fact, 84% of LEAs provide mentors prior to employment, 92% assisted with transcript review, and 88% helped locate needed classes. LEAs were asked to select which of the following supports they provided to lateral entry teachers in the last year. The list of supports, with percent of LEA responses is in Table 20.

Table 20: Supports for Lateral Entry Teachers[10]

Support Offered by LEA	% of LEAs Providing Support	Support Offered by LEA	% of LEAs Providing Support
Provide* at least three *of the supports mentioned in the survey	***100%***	Provide focused professional development throughout school year	64%
Assist with transcript review and developing a program of study	92%	Pay for Praxis II licensing exam	56%
Provide teacher with a mentor before the first day of employment	84%	Conduct monthly meetings	39%
Provide additional assistance and support during the two week orientation	83%	Provide a person whose full-time duties are to serve as a mentor	31%
Offer tuition assistance to complete coursework required for licensing	80%	Offer Praxis II preparation sessions	24%
Provide mentor in the same area of license	72%		

In addition, the NC District and School Transformation team provides substantial support for lateral entry (and other beginning) teachers in DST schools. The support provided by the Transformation team includes one-to-one mentoring through approximately eight on-site visits from content-area specialists and ongoing access to the specialist for online mentoring. For more information, see Section E2; see also Section D3 for plans to strengthen the induction program for lateral entry teachers in high-need schools.

[10] Data in this table represent LEAs who employed at least one lateral entry teacher in the previous year (114 out of 115); one LEA indicated that no lateral entry teachers were employed in the previous year.

IHE-based Lateral Entry Programs. Several lateral entry programs are offered through various IHEs across NC, and programs associated with the UNC system produce about 1,000 prospective teachers annually (nearly 10% of annual demand). The largest program is NC TEACH, a statewide, lateral entry licensure program offered through 12 IHEs. This program begins with an intensive, full-time, summer program that candidates complete as part of a cohort. During the first lateral entry year, candidates complete weekend and evening coursework with their cohort. While the specifics of individual programs may vary from IHE to IHE, it takes a minimum of 12 months to complete the 18-credit-hour program and be recommended for a clear initial license. Since NC TEACH was established in 2000, the program has licensed more than 1,300 teachers. Licensed NC TEACH participants currently serve in more than 85 (of the 115) school districts in all regions of NC.

Regional Alternative Licensing Centers. In 2002, the State Board established the Alternative Licensing Centers, which are regional offices authorized to evaluate and prescribe plans of study that lead to licensure. About 1,000 candidates complete plans of study through the four centers (Charlotte, Fayetteville, Nash-Rocky Mount, and Catawba) every year. A candidate following an Alternative Licensing Center program of study is not tied to any single IHE licensure program; therefore, he or she can attend multiple community colleges and/or universities for coursework, providing additional flexibility for the individual.

Licensure via Teach for America. In May 2010, the State Board approved a measure to allow Teach for America corps members to apply directly to NCDPI for full (Continuing) licensure, upon successful completion of the Teach for America induction program and three years of teaching. Teach for America participants may apply directly to the Licensure Section at NCDPI to obtain their licenses. Teach for America corps members are an invaluable resource in providing effective instruction to students in two urban LEAs (Charlotte-Mecklenburg, Durham) and twelve hard-to-staff rural LEAs, providing 350-400 teachers annually. Recent studies (Xu *et al*., 2007), including analyses commissioned by UNC General Administration (Henry *et al*., 2010), suggest that NC Teach for America corps members are as effective and in many cases more effective than traditionally trained teachers. Plans to expand Teach for

America's presence in NC are detailed in Section D3, and more information about the study sponsored by UNC General Administration are in Section D4.

Innovative and Experimental Lateral Entry Programs. NC also promotes the development of new approaches to lateral entry licensure that are *not directly administered by the State or IHE*. Proposals for such programs are reviewed by the NCDPI, the NC Professional Teaching Standards Commission, and the State Evaluation Committee on Teacher Preparation and Certification. To qualify for approval, programs must specify competence standards, procedures for recommending licensure, follow-up processes, and clearly defined, measurable expected outcomes/results. Programs must be administered by a school system, either independently or in conjunction with a community college or university. Since establishing the innovative and experimental lateral entry policy in August 2007, the State Board has approved 4 programs, including:

- Guilford County Schools Alternative Certification Track (GCS ACT), which established the first such program in June 2008, offers lateral entry candidates the option of selecting an 18-month, locally-customized licensure and support program as an alternative to an IHE or RALC program; 15 candidates completed the program in 2009, and 50 are scheduled to complete in 2010;
- Moore County, which has partnered with Sandhills Community College to create a similar program;
- Charlotte-Mecklenburg Schools' Lateral Entry Assistance Program, an alternative licensure program approved by the State Board in July 2009 for career and technical education teachers in the Charlotte-Mecklenburg School System (twelve current candidates); and
- CORE – The Consortium for Orchestration Regional Education), which is comprised of Clinton City, Duplin County, Sampson County and Wayne County Schools in collaboration with Mount Olive College (four candidates completed in 2009, and three more will complete in 2010);

Expansion of Lateral Entry Pathways for Teachers. The State Board has taken action in response to the recently passed NC Session Law 2009-451, which requires the State Board to remove barriers to lateral entry for skilled individuals from the private sector,

particularly by reducing current course requirements and enabling candidates to complete coursework online. The State Board presented a progress report to the Joint Legislative Oversight Committee in February 2010. Preliminary recommendations include: modifying required pedagogy coursework to align with the new Professional Teaching Standards, which will reduce coursework from nine to five courses; and engaging an outside, online learning vendor to create course modules that will offer lateral entry teachers expanded options for course completion.

Alternative Pathways for Principals

In July 2007, the State Board adopted a policy allowing for the approval of innovative/experimental programs for school administrator preparation. Since then, the State Board has taken the following related actions:

- In June 2008, the State Board gave approval for Charlotte Mecklenburg Schools (CMS) to recommend individuals who complete its New Leaders for New Schools program (NLNS) for a full State license as a school administrator. NLNS employs intensive instruction, hands-on experience through a year-long residency, and ongoing support to help current and former educators become excellent principals who specialize in leading urban public schools. The CMS program's goal is to provide as many as 50 principals for the district. Nine candidates, selected from over 180 applicants to participate in the first cohort, are scheduled to complete the program in June 2010. A second cohort of 14 participants will begin the program in June 2010.
- Recognizing the need for more alternative routes to becoming a principal, the State Board also has approved the development of Regional Leadership Academies (RLAs), described in Section D3 of this proposal, as another means for individuals to obtain principal licensure. The first such academy – the Northeast Leadership Academy, a partnership between northeastern NC school districts and NC State University – is a two-year program for applicants with three years of teaching experience who are pursuing a Masters of School Administration. Twenty-seven applicants recommended by superintendents will participate in the first cohort orientation in summer 2010. Cohort participants will be involved in problem-based applications and will work with master administrators as mentors and coaches.

Direct Licensure of Teachers and Principals

NCDPI's Licensure Section has authority to evaluate individual candidate records to establish eligibility for licensing without the involvement of an IHE or another authorized recommending agency. This "direct licensure" approach may be used in cases when there are unique employment qualifications for a license area (*e.g.*, career-technical education, international faculty), a limited number of approved teacher or administrator education programs in the license area, or extenuating circumstances that prohibit a fair and equitable evaluation through other established routes to licensure. Employees who have earned licenses through this direct process must comply with all current provisional license, beginning teacher, and testing requirements, as well as any experience requirements for the licensure earned.

D.1.iii. Monitoring, Evaluating, and Identifying Areas of Teacher and Principal Shortage

The NC Department of Public Instruction (NCDPI) monitors and reports on teacher and principal shortages annually. In 2006, NCDPI adopted a plan for addressing shortage areas and teacher inequities across the state, implementation of which has led to reduced teacher and principal turnover and shortages in many LEAs.

NCDPI compiles and presents to the State Board an annual report of teacher and principal vacancies remaining in each LEA after October 20. The report (Appendix 24) disaggregates vacancies by subject area and by LEA. LEAs are also required by statute[11] to inform the State Board of positions that are filled by teachers who do not meet standards for initial licensure. The alternative licensure programs described above and in Section D3 help to address the shortages indicated by these two data collections. In 2006, NCDPI outlined and implemented an ambitious, 10-point statewide plan for addressing identified highly-qualified teacher shortages. The plan included the following elements:

1. Ongoing statewide public reporting of shortages;
2. Development of LEA-level equity plans for ensuring highly qualified teachers for all students;

[11] NC General Statute 115C-296.1(d)

3. Ongoing administration and analysis of the statewide Teacher Working Conditions survey;
4. Comprehensive provision of mentoring for early-career teachers
5. Development of local retention plans by LEAs with teacher turnover rates higher than the State average;
6. LEA-level flexibility for providing financial incentives to teachers;
7. Establishment of Turnaround Teams for low-performing high schools;
8. Provision of literacy coaches to strengthen professional development in high-needs middle schools;
9. Expansion of access to teacher preparation programs via community colleges and other outlets; and
10. Development of the NC Virtual Public School to provide students with greater access to highly qualified teachers statewide.

Progress has been made in addressing all 10 points of the plan, with substantial progress made in addressing points 1, 3, 4, 6, 7, 8, 9, and 10. Details on many of these points and how they have been addressed are provided in later sections of this proposal.

Reform Plan Criteria

(D)(2) Improving teacher and principal effectiveness based on performance *(58 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan and ambitious yet achievable annual targets to ensure that participating LEAs (as defined in this notice)—

(i) Establish clear approaches to measuring student growth (as defined in this notice) and measure it for each individual student; *(5 points)*

(ii) Design and implement rigorous, transparent, and fair evaluation systems for teachers and principals that (a) differentiate effectiveness using multiple rating categories that take into account data on student growth (as defined in this notice) as a significant factor, and (b) are designed and developed with teacher and principal involvement; *(15 points)*

(iii) Conduct annual evaluations of teachers and principals that include timely and constructive feedback; as part of such evaluations, provide teachers and principals with data on student growth for their students, classes, and schools; *(10 points)* and

(iv) Use these evaluations, at a minimum, to inform decisions regarding— *(28 points)*

(a) Developing teachers and principals, including by providing relevant coaching, induction support, and/or professional development;

(b) Compensating, promoting, and retaining teachers and principals, including by providing opportunities for highly effective teachers and principals (both as defined in this notice) to obtain additional compensation and be given additional responsibilities;

(c) Whether to grant tenure and/or full certification (where applicable) to teachers and principals using rigorous standards and streamlined, transparent, and fair procedures; and

(d) Removing ineffective tenured and untenured teachers and principals after they have had ample opportunities to improve, and ensuring that such decisions are made using rigorous standards and streamlined, transparent, and fair procedures.

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Ten pages

D.2.i. Measuring Student Growth

With the ABCs of Public Education (ABCs) Accountability System, the Lexile/Quantile framework, and a statewide license to use the Education Value-Added Assessment System (EVAAS), NC has well-established and clear approaches to measuring student growth and measuring it for individual students. The State provides teachers, parents, and students information about student performance through various communication vehicles (see Section C2), including a public school and district report card website. NC also provides financial incentives to teachers and principals based on measures of student growth.

Background

In 1995, NC established one of the nation's first modern statewide school accountability programs, the ABCs of Public Education (ABCs), to create a new lens through which to focus on the State's goal of improving growth in individual student achievement. Since that time, the ABCs program has provided NC with a school-level accountability system that supports data-driven decision-making, allowing NC teachers, parents, schools, LEAs, State-level policymakers, and local communities to better target school improvement efforts (see Section C2 for more details). The ABCs provide teachers and parents with information about individual student performance on statewide end-of-grade and end-of-course tests, including norm-referenced scale scores and criterion-referenced Lexile (reading) and Quantile (math) levels. The ABCs program also includes financial incentives in the form of bonuses for all professional staff in schools that meet or exceed expected growth. Since the ABCs program was well-established long before the advent of the Federal No Child Left Behind (NCLB) legislation in 2002, NC needed only to add AYP measures and requirements for schools to disaggregate data by student subgroups to comply.

In 2007, to expand the toolset available to NC teachers to support their understanding of individual student growth trajectories, the General Assembly funded a statewide license that grants access for all LEAs to the SAS Institute's Education Value Added-Assessment System (EVAAS). This powerful tool (described in detail below) uses historical test data to measure individual student progress over time, diagnose opportunities for growth, and predict the probability that a student will succeed in specific courses, based on her or his prior test scores.

ABCs Model for Measuring Individual Student Growth. Since initial implementation of the ABCs, the State has raised standards in math and reading and strengthened the basic ABCs model. In 2006, with support from USED, NC made significant changes to the ABCs program by implementing new growth formulas. To ensure transparency and public confidence in the model, details about the formulas and procedures are available publicly on NCDPI's website, and school- and LEA-level results of annual testing (known as the "ABCs accountability report") also are available to the public online. In addition, individual student-level results are provided separately and securely to each student's teachers and parents (see Section C2 for more information, particularly regarding the Lexile/Quantile framework).

At the school level, the current ABCs accountability system publicly reports performance, growth, and AYP measures for the school overall and for NCLB-defined subgroups that have more than 40 students. These measures are based on the following statewide assessments:

- End-of-grade tests, administered in reading and mathematics in grades 3 through 8 and in science in grades 5 and 8;
- End-of-course tests, administered to high school students in eight subject areas: Algebra I, Algebra II, Biology, English I, Geometry, US History, Civics and Economics, and Physical Science; and
- Alternative assessments, available for certain students with disabilities.

Performance measures place students in one of four achievement levels, with Level III considered "at grade level" and Level IV considered "above grade level." The performance composite for a school is the proportion of individual test scores at or above Achievement Level III.

An individual student's academic growth measure is calculated as change from a baseline average of the prior two years' assessments. If only one year's EOG test data are available, the expectation for change is based on only one prior assessment. An individual student is expected to perform on the EOG test for the current year as well as or better than she or he did, on average, in the prior two years. This expectation is determined by placing students' scores on a c-scale (a "change scale," to which a student's developmental scale score is converted), with an adjustment for regression to the mean.

A school's AYP status is determined by whether the students in the school, as a whole and in each identified subgroup with 40 or more students, meet the performance standards set by NC in compliance with Federal guidelines. For public reporting, NC schools are classified based on the set of criteria shown in Table 21.

Table 21: NC School Classification Matrix

<table>
<tr><th rowspan="2">Performance Level
(% of students scoring at or above Achievement Level III)</th><th colspan="3">Academic Growth</th></tr>
<tr><th colspan="2">Schools making:
Expected or High Growth</th><th>Schools making:
Less than Expected Growth</th></tr>
<tr><td rowspan="2">90% - 100%</td><td>AYP met</td><td>Honor School of Excellence</td><td rowspan="3">No recognition</td></tr>
<tr><td>AYP not met</td><td>School of Excellence</td></tr>
<tr><td>80% - 89%</td><td colspan="2">School of Distinction</td></tr>
<tr><td>60% - 79%</td><td colspan="2">School of Progress</td><td></td></tr>
<tr><td>50% - 59%</td><td colspan="3">Priority School</td></tr>
<tr><td>Less than 50%</td><td colspan="2">(Priority School)</td><td>Low Performing School</td></tr>
</table>

Education Value-Added Assessment System (EVAAS). In 2007-08, the General Assembly funded a statewide license that enables all NC LEAs, schools, and teachers to access the Education Value-Added Assessment System (EVAAS), a software tool created by Dr. Bill Sanders at SAS Institute in Cary, NC. EVAAS extends the information available to educators via the ABCs about individual student growth. Users of EVAAS can produce reports that predict individual student success on EOG and EOC tests, reveal patterns in subgroup performance, and estimate the impact of teachers and schools on student achievement. EVAAS adds dimensions to the ABCs growth measure by analyzing multiple aspects of a student's academic history. The software uses historical test data to calculate a precise measurement of student progress over time, as well as a reliable diagnosis of opportunities for growth, based on up to five years of data for an individual student. One function predicts the probability that individual students will succeed in specific courses,

based on analyses of their prior test scores. Schools are using this predictive analysis to inform placement decisions into mathematics courses, an innovation that has led to increases in earlier enrollment in Algebra I. Teachers also use EVAAS's ability to identify students who are at risk of academic failure to customize instruction for them to accelerate their academic growth. Recent RAND Corporation assessments support the EVAAS approach to value-added measurement (McCaffrey *et al*., 2008a & b; Lockwood & McCaffrey, 2007); further information about EVAAS is provided in Appendix 31.

D.2.ii. Evaluation

North Carolina's Educator Evaluation System (Evaluation System), which was designed and developed with teacher and principal involvement, is a rigorous, transparent, and fair evaluation system for teachers and principals that uses multiple rating categories. Between 2010-11 and 2012-13, with continued input from teachers and principals, the state will integrate a system for differentiating teacher and principal effectiveness that takes into account data on student growth as a significant factor.

NC Educator Evaluation System for Teachers and Principals

NC is deeply committed to implementing a rigorous, transparent, and fair evaluation system for teachers and principals statewide that combines measures of student growth with other research-based indicators to help ensure that every student has effective teachers and that every school has an effective principal. In order to ensure that educators and the public view this system as credible, over the past several years the State has partnered with teachers, principals, and a variety of other stakeholders, all of whom have provided and continue to provide ongoing and substantive input, to develop and implement the Evaluation System. During the 2008-09 school year, NC began statewide roll-out of the Evaluation System, which includes a new set of professional standards for teachers and principals, along with new statewide evaluation processes aligned with those standards.

Aligned Standards.

The Standards underlying the Evaluation System are aligned with the State Board's goals (see Section A1; also see Appendix 1), research results from the NC Teacher Working Conditions Survey, program approval criteria for Schools of Education and MSA Programs, and professional development and mentoring programs. The standards reflect the complexity of education in the 21st

century by emphasizing the important roles of leadership, teamwork and collaboration, higher-order thinking, authentic assessment, and technology-infused learning. NC is the only state with an evaluation system that is aligned across so many levels of education, including teacher preparation and school administrator programs in the UNC System's colleges of education, which recently completed a review and reform process to align their programs with the State teacher and principal standards. The following graphic illustrates the alignment of NC's system of educator standards, preparation, support, and evaluation:

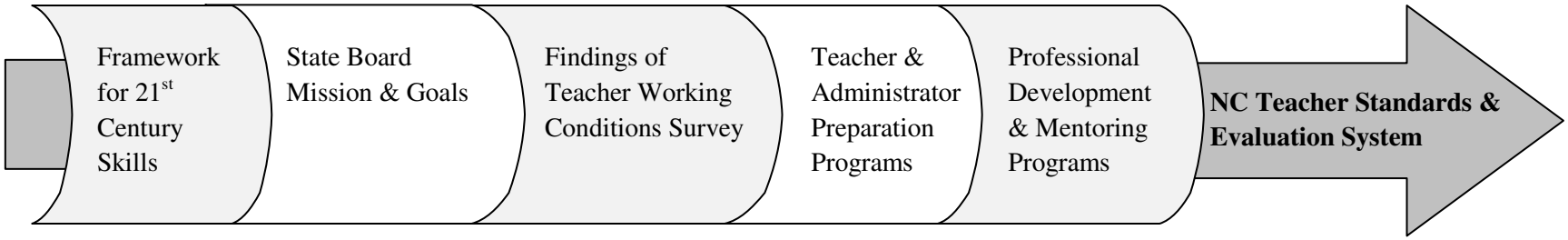


Figure 8: NC's Aligned Educator Standards & Evaluation System

Evaluation Tools.

The Educator Evaluation System currently includes a *Teacher Evaluation Process* and a *Principal Evaluation Process*, and evaluation instruments are being field-tested for assistant principals and superintendents. The State Board requires all LEAs across NC to implement the Evaluation System instruments. Superintendents evaluated all principals using the Principal Evaluation Process beginning in 2008-09. The implementation of the Teacher Evaluation Process began with 13 districts in 2008-09 and 39 districts in 2009-10. The remaining 63 districts will put the Teacher Evaluation into practice in 2010-11.

Teacher Evaluation Process. The teaching standards and the Teacher Evaluation Process were developed by the NC Professional Teaching Standards Commission, whose membership includes classroom teachers, school and district administrators, education faculty, and the president of the teachers' association; feedback from focus groups across NC informed this development process. The Teacher Evaluation evaluates teachers on the following five standards:

1. Demonstration of leadership;
2. Establishment of a respectful environment for a diverse population of students;
3. Knowledge of content taught;
4. Facilitation of learning; and
5. Reflection on practice.

A sixth standard – *Measures of Student Growth* – will be added before the 2010-2011 school year to strengthen the existing Teacher Evaluation (see ***Integration of Student Growth Measures***, below). Evaluations occur four times a year for probationary teachers and annually for career-status teachers.

Principal Evaluation Process. The Principal Evaluation Process was developed by a task force composed of administrators, business representatives, legislators, and members of professional organizations. Like the Teacher Evaluation Process, it incorporates standards that cover multiple facets of leadership (strategic, instructional, cultural, human resources, managerial, external development, and micro-political). A unique component of the Principal Evaluation is its integration of Teacher Working Conditions Survey data as an artifact, which evaluators (superintendents) can use to help principals focus on how best to improve teaching and learning conditions. The importance of student achievement and growth is woven throughout both instruments; as with the Teacher Evaluation, an additional *Measures of Student Growth* standard will be added to the Principal Evaluation process, as detailed below.

Integration of Student Growth Measures.

On both the Teacher and Principal Evaluations, an educator's mastery of aspects of each standard is rated as *Not Demonstrated*, *Developing*, *Proficient*, *Accomplished*, or *Distinguished*. Both the Teacher and Principal Evaluations were designed primarily to support professional growth. The tools also help to differentiate teachers and principals by identifying those at the top end who may be candidates to serve as mentors or Professional Development Leaders (see Section D5), as well as those at the lower end who are in need of remediation or possible dismissal. (See Appendix 32 and Appendix 33 for the NC Teacher and Principal Standards and Evaluation Rubrics). While the Teacher and Principal Evaluations each currently embed student growth as a component of several

standards, beginning with the 2010-11 school year, and with continued input from teachers and principals, the State will integrate into both evaluations additional standards that will formally factor student growth data into the evaluation process (see Sections D.2.iii-iv below).

D.2.iii and D.2.iv. Initiatives to Improve Effectiveness Based on Performance

North Carolina conducts annual evaluations of teachers and principals using the NC Educator Evaluation System that include timely and constructive feedback. Beginning in 2010-11, as part of such evaluations, teachers and principals will be provided with data on student growth for their students, classes, and schools. These data will measure how well teachers and principals meet new *Measures of Student Growth* standards, as defined in the Teacher and Principal evaluations. North Carolina uses these evaluations to inform decisions regarding the following:

- Development of teachers and principals through the provision of relevant coaching, induction support, and professional development;
- Promotion and retention of teachers and principals;
- Granting of tenure and full certification to teachers and principals; and
- Removal of ineffective tenured and untenured teachers and principals after they have had ample opportunities to improve, all using rigorous standards and streamlined, transparent, and fair procedures.

Beginning in 2010-11, the State will introduce an achievement-based compensation model for teachers and principals in the state's lowest-achieving schools. In addition, LEAs without compensation plans will be able to use RttT funds to adopt one of five current LEA-level compensation models. Finally, NC will build on current compensation pilots to provide opportunities for highly effective teachers and principals to obtain additional compensation, and NC Educator Evaluation System results will inform decisions to give teachers and principals additional responsibilities as Professional Development Leaders (see Section D5).

NC recognizes and understands that a teacher's influence is the single most important measurable influence of the school experience on student academic progress. As a result, we believe that evaluations of teacher and principal effectiveness must contain, as a major component, assessment of a teacher's or principal's effect on the academic growth of her or his students. Given NC's long experience in developing both student and educator evaluations, as noted above (Section D.2.ii), we understand the challenges of designing and implementing a rigorous, transparent, and fair system for evaluating teachers and principals that uses student growth measures as a major component. We base this understanding on our own history of educator evaluation systems, the innovative approaches that are being implemented and evaluated in some NC districts and projects, and the measurement and psychometric expertise contributed by

the UNC system, NCDPI, and the SAS Institute (a NC-based, private-sector world leader in analytics, and developer of the EVAAS system described above). We acknowledge numerous concerns, including the following:

- The use of student growth data based upon assessments that are subject to future changes;
- Evaluation of teachers of untested subjects and lack of valid longitudinal data for many grades and subject areas (*e.g.*, Martineau, 2006; Milanowski *et al.*, 2009);
- Non-random assignment of students to teachers (*e.g.*, Rothstein, 2009);
- Student cohort effects (*e.g.*, Raudenbush, 2004);
- Teacher peer effects (*e.g.*, Alicias, 2005; Lockwood *et al.*, 2007); and
- School context and leadership effects; and other issues (Board on Testing and Assessment & National Research Coalition, 2009).

In light of these concerns, we understand that we must develop and implement a system that is rigorous, transparent, and fair, so that it will be accepted by all constituents. Therefore, we plan to proceed with a thoughtful, data-informed, and stakeholder-engaged process for efficiently incorporating student growth measures into educator evaluations, a process to which we will refer as the NC RttT Educator Evaluation Plan.

NC RttT Educator Evaluation Plan

The NC RttT Educator Evaluation Plan is comprised of three major parts:

1. Adding a student growth component to the Educator Evaluation process (see Appendix 4 for NC State Board Resolution that commits NC to using student achievement growth data in the teacher and principal evaluation processes);
2. Fully implementing an Educator Evaluation process that includes student growth measures as essential and significant components of both the Teacher Evaluation Process and the Principal Evaluation Process; and
3. Conducting a thorough, data-informed planning and evaluation process – via a *Teacher Effectiveness Workgroup* – with all relevant constituents represented to a) determine the most rigorous, transparent, and fair way to incorporate student growth

measures in all teacher and principal evaluations and b) study teacher compensation models in place across the state and evaluate their fairness, validity, and reliability.

1. Adding a student growth component to the NC Educator Evaluation System processes

Measurements of student growth will be incorporated into the Educator Evaluation System process in two stages.

Stage One. An emphasis on student growth already is threaded throughout the Teacher Evaluation Process, and it is a particular focus of Standard IV: "Teachers facilitate learning for their students" and Standard V: "Teachers reflect on their practice." Similarly, student growth is cited as an important artifact for several standards evaluated by the Principal Evaluation Process. To further emphasize that student growth data are essential parts of the evaluation process, beginning in the 2010-11 school year, the Teacher and Principal Evaluations will be expanded, respectively, to include additional sixth and eighth standards that require specific documentation of a teacher's or principal's impact on student growth. During *Stage One*, assessment of this standard will require *inclusion of two or more examples of student growth data* (see Table 22, below). LEAs will have the discretion to determine which data will be used, but the data must come from a broad list of eligible data sources.

For principals and for teachers of tested subjects, eligible data will include:

- ABCs growth measures (scale scores and/or Lexile/Quantile scores), which employ a pre- and post-test method of measuring growth;
- EVAAS results; or
- Career Technical Education Assessment System results for career and technical education students.

For all teachers (including teachers of non-tested subjects), eligible data also will include:

- Annual Measurable Achievement Objectives results for Limited English Proficient students;
- Measurable Individual Education Plan goals for students with disabilities; or

- One of the measures currently being piloted in individual LEAs – These LEA-developed measures include pre- and post-course tests for currently non-tested courses, and the Student Learning Objectives (SLO) model currently employed in one LEA (Charlotte-Mecklenburg) through a Teacher Incentive Fund (TIF)-LEAP grant in collaboration with the Community Training and Assistance Center. The pre-/post-test/SLO approaches allow teachers and administrators to conduct rigorous, objective measurements of student progress toward goals related to the NC Standard Course of Study for courses in which a standardized state assessment and/or baseline data from which to measure growth are not available. Through the SLO process, teachers and administrators work together to identify specific Standard Course of Study-related areas of focus for each class, and LEA central office staff audit the plans and their implementation to ensure that they are appropriate and are implemented with fidelity. Progress toward meeting SLOs is measured using standardized tests or school- or district-developed tests.

Stage Two. Beginning in the 2012-13 school year, after the completion of a study by the Teacher Effectiveness Workgroup (detailed below) and upon adoption of that Workgroup's recommendations for incorporating student growth measures in educator evaluations, the State will adopt a *uniform, statewide set of acceptable measures of pre-approved student growth data*. The Effectiveness Workgroup will utilize feedback and analyses of the various approaches to measuring student growth (listed above in *Stage One*) to determine the most appropriate measure (or mix of measures) to include for both tested and non-tested subjects. That is, results from multiple LEA-level applications of student growth data to teacher and principal evaluation during *Stage One* of the process will provide the variety of data and experiences necessary to inform the State's transition to a uniform approach during *Stage Two*.

Table 22: Student Growth Data for Inclusion in Teacher and Principal Evaluations

School Year	Function/Role	Principals	Teachers (Tested Subjects)	Teachers (Untested Subjects)
Stage One: 2010-2012	Inclusion of a new standards as part of the Principal &Teacher instruments.	ABCs growth; EVAAS results; Career Technical Education Assessment System	ABCs growth; EVAAS results; Career Technical Education Assessment System; Annual Measurable Achievement Objectives (for LEP); Individual Education Plan goals (students with disabilities); local pre-/post tests; Student Learning Objectives	Annual Measurable Achievement Objectives (for LEP); Individual Education Plan goals (special needs); local pre-/post tests; Student Learning Objectives
Stage Two: 2012-2014	Finalization of state-approved measures of student growth	*TBD, based on results of Teacher Effectiveness Initiative study of options utilized during* ***Stage One***		

Currently, beginning teachers are required to reach the level of proficient or better for each standard of the NC Educator Evaluation System within their first three years; proficiency within two years is required for teachers who transition from beginning status and hold a continuing license. After adoption of the student growth component in 2010-11, the definition of an *effective teacher or principal* will be an educator whose students' growth (in the aggregate) meets expectations (one year of expected growth) *and* whose ratings on the other standards that comprise the NC Educator Evaluation System are at the level of *proficient* or higher. The definition of a *highly effective teacher or principal* will be an educator whose students' growth (in the aggregate) significantly exceeds expectations (more than one year of expected growth) *and* whose ratings on all other standards that comprise the NC Educator Evaluation System are at the level of *accomplished* or higher (Figure 9). Rather than assigning arbitrary weights to each standard and attempting to attach a numerical value to a teacher's or principal's evaluation, this approach values *all* standards as essential and requires teachers and principals to attend to *all* aspects of their roles; failure to meet a certain level of performance on *any* standard (including the *Measures of Student Growth* standard) will result in a series of interventions that, if improvement does not occur, can end in dismissal (discussed below).

EFFECTIVE = Student Growth (meets expectations) + Other NCEES standards (all *Proficient* or higher)

HIGHLY EFFECTIVE = Student Growth (significantly exceeds expectations) + Other NCEES standards (all *Accomplished* or higher)

Figure 9: Effective and Highly Effective Teachers and Principals in NC

We are sensitive to concerns that achievement data for one year in isolation is often inadequate for representing fairly a teacher's or principal's typical contributions to student learning. Therefore, student growth data will be considered formally by an evaluator only once enough data are available to indicate potential trends (*e.g.*, three consecutive years of test scores in the same subject area). Evaluators can, however, require personal development plans (see *Removal of ineffective teachers* and *Removal of ineffective principals*, below) for teachers and principals based on two consecutive years of data indicating inadequate student growth.

Annual reporting to the public about teachers will include school- and LEA-level reports of the following:

1. The proportion of teachers whose students demonstrate expected growth and the proportion whose students' growth significantly exceeds expected growth;
2. The proportion of teachers who are at each level (not demonstrated, developing, proficient, accomplished, distinguished), by NC Educator Evaluation System standard; and
3. The proportion of teachers who move beyond the "Developing" level within the required timeframe.

Similarly, reporting about principals will include LEA-level reports of the following:

1. The proportion of principals whose students on average meet or significantly exceed expected growth;
2. The proportion of principals who are at each level, by Educator Evaluation System standard; and
3. The proportion of principals who move beyond the "Developing" level within the required timeframe.

These reports will be integrated into the current online NC School Report Cards, which already display annual school-level and LEA-level information about quality teachers and administrators.

2. Full implementation of the expanded NC Educator Evaluation System processes

NC will utilize a range of strategies to support full implementation of the NC Educator Evaluation System. These strategies are listed in Table 23 below, and are described in the subsequent subsections.

Table 23: Strategies for Fully Implementing NC Educator Evaluation System

Strategy	Brief Description	Responsible Parties
NC Educator Evaluation System Support Personnel	Orient teachers and principals to the revised evaluation standards and provide guidance for student data analysis	Professional Development Leaders (see Section D5)
Development of teachers and principals	Link new and existing professional development opportunities to specific evaluation standards; encourage pursuit of national licensure	NCDPI
Granting tenure (Career status) and full licensure	Results of multiple evaluations included in review process	LEAs
Removal of ineffective teachers and principals	Application of minimum Educator Evaluation System minimum standards to licensure process	State Board
Teacher and principal compensation	Application of measures of student achievement to compensation in lowest-achieving LEAs	State Board

NC Educator Evaluation System Support Personnel. The primary lever for ensuring full implementation of the expanded NC Educator Evaluation System processes will be the development of NC Educator Evaluation System Support Personnel, one of the roles to be included among the responsibilities of the Professional Development Leaders, outlined in Section D5, and, for the lowest-achieving schools, as part of the duties of the District and School Transformation teams (Section E2). The role will be phased in during the 2010-11 school year and will conclude by the end of the 2013-14 school year. These Support Personnel will work to deepen educator knowledge of the NC Educator Evaluation System standards, the evaluation system, teacher working conditions, and the emerging student growth standards. A critical component of this professional development will be support for teachers in learning how to

interpret data on the academic growth of their students, as well as how to use that data to inform their instruction. Similarly, administrators will receive support for and training in how to help their teachers use student data to improve their instruction, so that they can carry on the work of the Support Personnel after they conclude their work. In addition, the Support Personnel will work to educate superintendents, principals, parents, community groups, business leaders, and others about the new evaluation system. They also will play a support role for observed teachers by providing detailed feedback after their observations. Finally, they will help evaluators learn how to utilize technology as part of the observation and evaluation process.

Development of teachers and principals. Along with the support provided to educators via the Support Personnel, NC will provide professional development tools and resources linked to each element of the Educator Evaluation System, as described more fully in Section D5. Additional coaching and induction support already is being provided for the lowest-achieving schools and LEAs, as described in Section E2, and beginning with the 2010-11 school year, this support will be informed directly by Educator Evaluation System results. Finally, NC will continue to support teacher pursuit of National Board Certification (as detailed in Section A3) and will extend support to principals who pursue Advanced Certification for Educational Leaders, once that program is launched in 2011.

Granting tenure (Career status) and full licensure. Teachers eligible for full licensure (referred to in NC as SP2, or Continuing licensure) must meet the definition (above) of an effective teacher. After completing their fourth year of teaching, teachers can be considered for Career status (NC's equivalent to tenure) by their local Boards of Education. In making Career status decisions, local Boards will consider the following state guidelines: in addition to meeting the definition of an effective teacher, eligible teachers also should have been evaluated at least 16 times using the Teacher Evaluation; and they must be offered employment by the granting LEA (*i.e.*, offered a contract) for the following year.

Removal of ineffective teachers.

- By State Board policy, beginning in the 2010-11 school year, teachers in any LEA who do not achieve a rating of proficient or higher on all Educator Evaluation System standards by the end of their third year (for Beginning educators) will not be eligible for Continuing licenses, and they may not continue to teach.

- In all LEAs, teachers with Continuing licenses who are rated as developing for one year on any of the Educator Evaluation System standards will be placed on a monitored growth plan. If they do not become proficient by the end of the second year, they will be placed on a directed growth plan for a period of no more than one year. If they still do not become proficient, then the teacher will be dismissed.
- At the beginning of each school year, principals and teachers (both Beginning and Continuing) will review together student achievement data from the prior year. Beginning in 2012-13, if aggregated student data for a teacher are below expected growth, the principal and teacher will devise a professional development plan that includes strategies for improvement. Evaluators, supervisors, and coaches will be able to use Educator Evaluation System and student growth data to identify professional development tailored to the needs of the individual educator in order to have a positive and significant effect on student achievement. Should a teacher experience three consecutive years of student growth that is lower than expected, then the teacher will be placed on a directed growth plan for a period of no more than one year. If the teacher does not become proficient within that time, then the teacher will be dismissed.

Removal of ineffective principals. Superintendents evaluate principals annually using the PEP. At the beginning of the year, each principal brings to a conference her or his school improvement plan, student achievement data, Teacher Working Conditions survey results, SMART (Specific, Measurable, Attainable, Relevant, and Time-Bound) goals, and any other pertinent data requested by the superintendent. From these data, measureable goals are written for the year, reviewed mid-year, and evaluated at the end of the year. If a principal is ineffective for two consecutive years, her or his Superintendent may either place the principal on a directed growth plan, recommend that her or his contract not be renewed, or recommend dismissal.

Teacher and principal compensation. The ABCs legislation described in Section D2.i provides for incentive bonuses for each licensed staff person in schools that meet targets for expected growth (up to $750 per teacher and principal) and high growth (up to $1,500). NC also funds and supports LEA-level approaches to providing incentives to individual teachers based on their students' growth.

As NC fully develops and implements the Educator Evaluation System, we will engage in a parallel process to move from school-level compensation to classroom-level compensation in support of the Evaluation System's ultimate goal of improving student achievement. This process already is underway in a few LEAs. In the past two years, the Collaborative Project (a partnership of the Public School Forum of NC and the NC Science, Mathematics, and Technology Education Center) has linked financial incentives for individual teachers and principals to the ABCs growth measure with a goal of increasing teacher and principal effectiveness in several low-performing districts. Other programs linking incentives to student growth and teacher and principal evaluations are being implemented in four of the five largest school districts in the State, including Charlotte-Mecklenburg, Guilford, Cumberland (all of which are Teacher Incentive Fund sites), and Forsyth. (See Appendix 34 for further description of the Teacher Incentive Fund Grantees and Collaborative Project.)

NCDPI has been monitoring these approaches to determine which models successfully improve teacher and principal recruitment, retention, and effectiveness. NC will use RttT support to apply some of the lessons learned in the following two ways.

- *Compensation in the Lowest-Achieving Schools*

  Phase I (2010-12) – NC will use RttT funds to award incentive bonuses of $1,500 dollars each to all certified teachers, principals, and assistant principals in schools currently identified by the State as lowest-achieving (see Section E2) whose performance *exceeds* ABCs accountability system student growth targets. These bonuses will be *above and beyond* any such bonuses awarded as part of the statewide ABCs program.

  Phase II (2012-14) – Beginning in the 2012-13 school year, the incentive bonus program for the lowest-achieving schools will *transition from a school-level to a classroom-level program* for classroom teachers. Teachers whose students exceed expected growth *at the classroom level* – based on the adoption of a uniform, statewide set of acceptable measures of pre-approved student growth data *for all subject areas*, as noted above and as explained in component 3 of the Educator Evaluation Plan, below – will be eligible for the $1,500 award. Principals, assistant principals, and certified staff who are not assigned to specific classrooms

(*e.g.*, media specialists and others) will continue to be eligible for the awards based on school-level measures of growth. As in Phase I, these awards will be *above and beyond* any other earned bonuses.

Both phases of this program will be open to all schools identified as lowest-achieving at the start of the 2010-11 school year, and all of those schools will remain eligible throughout the RttT award period, even if a school exits the lowest-achieving designation during that period, as an additional incentive for retention of effective teachers.

- *Adoption of Current LEA-Level Compensation Models*

  Concurrent with the plan for providing compensation to teachers in the lowest-achieving schools, all LEAs, regardless of their achievement-level designations, will have the option to use a portion of their RttT funding to adopt one of the compensation models already in place in some of the State's LEAs (including projects funded by several Teacher Incentive Fund grants to LEAs and the Collaborative Project funded by NC, as noted above and described in greater detail in Appendix 34). LEAs with one of these compensation systems already in place will be able to use a portion of their RttT funding to expand their current programs. The process for adopting one of these plans will require the approval of participating teachers, principals, and other stakeholders of the school(s) or LEA involved. These plans could be used to support strategic staffing models to address issues of inequitable distribution of teachers and principals across an LEA, as described in Section D3.

At the end of the RttT award period, the State will assess the success of each compensation programs (see Component 2 of the Teacher Effectiveness Workgroup plan, below), and those determined to be successful (based on their impact on improvement in student achievement and on retention of effective teaches and principals) will be considered for continuation.

3. Going forward: Improving the continued use of student growth measures in educator evaluations

To develop the plan for improving use of student growth data in educator evaluations, between 2010 and 2014 NC will sponsor a Educator Effectiveness Workgroup, comprised of classroom teachers, school and district administrators, university faculty and other leading researchers with technical expertise, and representatives from organizations that represent these stakeholders (including the

NC Association of Educators and the NC Association of School Administrators). The Effectiveness Workgroup will be charged with developing several models for the final uniform statewide approach (as described in *Stage Two* above) that will be rolled out initially in a limited number of LEAs for the 2011-12 school year. The Effectiveness Workgroup will make recommendations based on its own research, evidence from the *Stage One* inclusion of student growth data in teacher and principal evaluation (described above), and input from focus groups convened to evaluate potential approaches for uniform statewide adoption. The Effectiveness Workgroup also will connect with other relevant research programs, such as the Bill & Melinda Gates Foundation-funded Measures of Teacher Effectiveness Project, for which Charlotte-Mecklenburg is one of the test districts. Based on analyses of the limited rollout in 2011-12, the Effectiveness Workgroup will present to the State Board by Summer 2012 final recommendations that, upon approval, will be implemented statewide the following school year.

The Effectiveness Workgroup will address both the *technical* and the *policy design issues* involved in including measures of student growth data in the Educator Evaluation System. The technical development process will evaluate approaches to estimating the amount of learning taking place in each classroom and separating out each teacher's contribution to that learning. The policy development process will explore and resolve broader questions about how these learning estimates should be used and how to deal with data gaps or other issues. Questions to be addressed include the following:

1. How best to assess teacher effectiveness a) in untested subjects, b) of initially licensed teachers (who have not yet developed a substantial history of student growth data), and c) of teachers of students with disabilities;
2. How teacher effectiveness can best be incorporated into a system of teacher incentives;
3. How information on teacher effectiveness can best inform decisions about professional development plans, teachers' roles as coaches and mentors for colleagues, and other aspects of teachers' career paths; and
4. What type of value-added model can most precisely and reliably estimate teacher effectiveness in NC.

From 2012-13 (*i.e.*, the beginning of full statewide implementation) forward, ongoing evaluation of NC Educator Evaluation System results across schools within and across LEAs, including the degree to which results accurately reflect variations in student outcomes,

will help to ensure the validity and consistency of the instrument's implementation statewide. We are particularly interested in evaluating the relationship between principals' and teachers' evaluation results, incentive programs, and student achievement growth data. These results also will help to inform evaluations of the impact of professional development (see Section D5).

Finally, the Effectiveness Workgroup will be charged with reviewing all new and current compensation programs and evaluating the degree to which each provides a valid, fair, and reliable way to compensate teachers and administrators on multiple measures of professional growth (experience, education, and other professional designations) and student growth and learning. The NC Network of Grantmakers also has conveyed their interest in supporting this effort. Through this process, we will carefully consider key issues, such as ensuring that incentives align with NC and LEA needs, assessing fairness to educators at different points in their careers, managing the overall costs as compared to the current system, and determining ways to continue the most successful programs at the end of the RttT grant period.

Supporting technology

All three initiatives of the NC RttT Educator Evaluation Plan will benefit from a number of supporting technologies described in other sections of this proposal. One data collection application will support online recording and aggregation of NC Educator Evaluation System results at the school and LEA levels. The tools that will be used in online professional development activities (described in Section D5) also will support the implementation of the enhanced Educator Evaluation System. Finally, NC has applied for ARRA and other funding to efficiently scale communications fiber based throughout the state to higher bandwidth requirements to ensure that all LEAs and schools have access to these tools (see Section A2)**.**

Implementation timeline

Several NC RttT Educator Evaluation Plan elements – the development and distribution of teacher leader/principal teams, results analyses, and online delivery of services – will be implemented statewide (see Table 24 below for timeline). The Support Personnel roles will be prioritized for: 1) high-need, low-performing districts not currently served by District and School Transformation teams

(Section E2) that lack the capacity to provide adequate support for developing teachers; and 2) districts whose relative remoteness makes it difficult for them to recruit from a broad pool of teachers.

Evaluation.

Specific questions, data sources, and timelines governing the evaluation of this process are included in Appendix 7.

Table 24: NC RttT Educator Evaluation Plan Implementation Timeline

ACTIVITIES	2010	2011	2012	2013	2014
Develop strategic plan for statewide coverage for Teacher and Principal Leaders who take on Support Personnel role	Sept 2010 – Feb 2011 • Generate job descriptions, recruitment, and training for Support Personnel • Develop Teacher Evaluation Workgroup (TEW) membership, guidelines, and detailed implementation plan • Disseminate e-Platform, online webinars, podcasts, professional development tools and content tied to the Educator Evaluation System • Fully implement the Teacher Evaluation Process statewide				
Deploy Support Personnel to target LEAs (phase out in 2014)					
Conduct Teacher Effectiveness Workgroup first-year evaluation			Feb – July 2012		
Publish aggregated Educator Evaluation System results for all LEAs			July 2012		
Implement limited rollout of Teacher Effectiveness Workgroup compensation recommendations			July 2012 – June 2013		
Develop career plans for developing teachers and make coordinated professional development available based on Educator Evaluation System results and Support Personnel recommendations in all high-need LEAs					
Fully implement Teacher Effectiveness Workgroup recommendations statewide and conduct first-year evaluation of initial adopters					
Publish validity and reliability results for Educator Evaluation System evaluations					
Conduct final evaluation of Teacher Effectiveness Workgroup recommendations					

Performance Measures for D(2)		Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
Criteria	**General goals to be provided at time of application:**	**Baseline data and annual targets**				
(D)(2)(i)	Percentage of participating LEAs that measure student growth (as defined in this notice).	100	100	100	100	100
(D)(2)(ii)	Percentage of participating LEAs with qualifying evaluation systems for teachers.	45	100	100	100	100
(D)(2)(ii)	Percentage of participating LEAs with qualifying evaluation systems for principals.	100	100	100	100	100
(D)(2)(iv)	Percentage of participating LEAs with qualifying evaluation systems that are used to inform:					
(D)(2)(iv)(a)	(a) Developing teachers.	45	100	100	100	100
	(b) Developing principals.	100	100	100	100	100
(D)(2)(iv)(b)	(c) Compensating teachers.	8	25	25	TBD	TBD
	(d) Compensating principals.	8	25	25	TBD	TBD
(D)(2)(iv)(b)	(e) Promoting teachers.	45	100	100	100	100
	(f) Promoting principals.	N/A	N/A	N/A	N/A	N/A
(D)(2)(iv)(b)	(g) Retaining effective teachers.	45	100	100	100	100
	(h) Retaining effective principals.	100	100	100	100	100
(D)(2)(iv)(c)	(i) Granting tenure and/or full certification (where applicable) to teachers.	45	100	100	100	100
	(j) Granting tenure and/or full certification (where applicable) to principals.	100	100	100	100	100
(D)(2)(iv)(d)	(k) Removing ineffective tenured & untenured tchrs.	45	100	100	100	100
	(l) Removing ineffective tenured and untenured principals.	100	100	100	100	100

Performance Measures for D(2)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
General data to be provided at time of application:					
Total number of participating LEAs.	115				
Total number of principals in participating LEAs.	2,399				
Total number of teachers in participating LEAs.	99,730				

(D)(3) Ensuring equitable distribution of effective teachers and principals *(25 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan and ambitious yet achievable annual targets to—

(i) Ensure the equitable distribution of teachers and principals by developing a plan, informed by reviews of prior actions and data, to ensure that students in high-poverty and/or high-minority schools (both as defined in this notice) have equitable access to highly effective teachers and principals (both as defined in this notice) and are not served by ineffective teachers and principals at higher rates than other students; *(15 points)* and

(ii) Increase the number and percentage of effective teachers (as defined in this notice) teaching hard-to-staff subjects and specialty areas including mathematics, science, and special education; teaching in language instruction educational programs (as defined under Title III of the ESEA); and teaching in other areas as identified by the State or LEA. *(10 points)*

Plans for (i) and (ii) may include, but are not limited to, the implementation of incentives and strategies in such areas as recruitment, compensation, teaching and learning environments, professional development, and human resources practices and processes.

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (D3i):

- Definitions of high-minority and low-minority schools as defined by the State for the purposes of the State's Teacher Equity Plan.

Recommended maximum response length: Three pages

D.3 Ensuring equitable distribution of effective teachers and principals

NC's plan for ensuring equitable distribution of teachers and principals is informed by multiple data sources and addresses a variety of inequities statewide. The plan includes initiatives that will accomplish each of the following:

1. Increase the number of principals prepared to lead transformational change in high need schools;
2. Increase the numbers of new college graduates teaching in NC schools through Teach for America and a new NC Teacher Corps program based upon the Teach for America model;
3. Strengthen the preparation of novice teachers – particularly lateral entry and out-of-state – which data show is a critical need;
4. Employ strategic staffing approaches to optimize the use of available human capital;
5. Make further use of virtual and blended (*i. e.*, part online, part onsite) classes for students to expand curriculum offerings and provide effective teachers when they are not available locally.

The fact that NC does not have effective teachers in every classroom and effective principals in every school is a critical concern. We know that the least effective and novice teachers often serve students who have a history of low achievement. Staffing inequities *between* districts and schools are widely recognized, and research in low-achieving NC districts has shown there are inequities even *within* individual schools; students with higher test scores in past years tend to be assigned to the more effective teachers than are their classmates in the same school (Henry *et al*., 2008).

The NC data show the depth of the inequity issues. We know that the rate of unfilled teaching positions in the lowest-performing LEAs is nearly 2.5 times the overall NC rate. NC carefully monitors teacher retention rates by school and district, the relationship of teacher working conditions to retention, and many of the factors that influence retention rates in NC schools; as a result, we know that overall teacher turnover is higher in the lowest-performing LEAs and schools than elsewhere (Hirsch & Emerick, 2007). We know that math, science, special education, and English Language Learning teaching positions consistently are the hardest to fill across NC, but most especially in economically distressed rural areas, where turnover over a three-year period among teachers in these subject areas is greater than 50% (Reiman *et al*., 2007). Furthermore, we recognize the need for more principals with the skills and

preparation required to lead the transformation of NC's lowest-achieving schools (NC State Board of Education, 2008; Public School Forum of NC, 2009).

In addition, we believe that teacher and principal effectiveness is not necessarily transferable across contexts. For example, a teacher who is highly effective with high-achieving, English-speaking students in an economically stable, suburban community may not be effective with low-achieving, limited-English-proficient (LEP) students in an economically distressed rural area. Similarly, a principal who can effectively sustain and improve a well-functioning suburban school may not be well-prepared to lead the changes required to transform a low-performing, high-minority, high-poverty school into a successful one. (See Appendix 35 for a NC-specific definition of high-minority and low-minority schools.)

These core problems cannot be addressed successfully by just rebalancing the distribution of a limited number of effective educators. Rather, we need to address the distribution issues while simultaneously ensuring that effective teachers already in low-performing schools are retained and aggressively increasing the number of effective educators across the State to ensure that all students have effective teachers and all schools have effective principals. NC already has taken steps to address this need. For example, in 2006, the State prepared a comprehensive plan for identifying and addressing the inequitable distribution of *No Child Left Behind*-defined highly qualified teachers, and results from the follow-up report (2009; Appendix 23) indicate that the State made significant strides in that area in only three years. In addition, since 2004, the NCDPI has partnered with Teachers-Teachers.com to manage a statewide educator recruitment initiative. This initiative was established to help all NC school districts and charter schools recruit highly qualified teachers and administrators by giving them access to a nationwide pool of qualified job seekers. By giving all LEAs equal access to this nationwide pool, North Carolina takes an important step toward providing for the equitable distribution of highly qualified educators.

This section describes initiatives that will (1) increase the number of principals prepared to lead transformational change in high need schools; (2) increase the numbers of new college graduates teaching in NC schools through Teach for America and a new NC Teacher Corps program based upon the Teach for America model; (3) strengthen the preparation of novice lateral entry and out-of-state

teachers in the lowest-achieving schools, which data show is a critical need; (4) employ strategic staffing approaches to optimize the use of available human capital; and (5) make further use of virtual and blended (part online, part onsite) classes for students to expand curriculum offerings and provide effective teachers when they aren't available locally. These initiatives all incorporate the principles and address the data-driven needs identified in the Section D Overview.

1. Develop and implement regional leadership academies to recruit, prepare, and support principals to make transformational changes in challenging school environments.

Recognizing that effective school leadership is the key to school improvement (Fuller, Baker, Young, 2007; Waters, Marzano, McNulty, 2003), North Carolina is committed to preparing more principals to lead transformational changes in low-achieving schools. The proposed regional leadership academies are designed to address this need by providing a new model for the preparation, early career support, and continuous professional development of school leaders who have the desire, expertise, and commitment to transform high-need schools (see Appendix 4 for the NC State Board Resolution that commits NC to the development of these academies). The academies will serve aspiring school leaders by providing a customized, comprehensive, research-based program that will position them to impact positively the schools in which they will work. The academies also will serve school districts by preparing individuals to fill projected school leadership positions in high-need schools. These academies will be designed and run through a partnership involving the LEAs in which the principals will serve, UNC Colleges of Education, the NC Association of School Administrators, the NC Association of Educators and the NC Department of Public Instruction. They will afford participants the opportunity to obtain principal licensure or specialty add-on licenses in the specialty areas of low-performing school turnaround administration, rural school administration, and urban school administration.

The leadership academies are designed to reframe principal preparation from school management to instructional leadership that assures learning for at-risk students in high-need schools. The program design will be consistent with literature on executive development, adult learning theory, and educational leadership (*e.g.*, Davis *et al.*, 2005; Hale & Moorman, 2003; New Leaders for New Schools, 2008). These academies will be focused specifically on the principal as a change agent, preparing school leaders to

foster innovation and improvement in high-need schools, a task that requires very different skills from those needed for maintaining a successful school.

Aspiring principals who are accepted into a leadership academy will participate in a two-year preparation program, with the first year focused on a case-study curriculum (requiring one day per week of release time from other responsibilities) and the second on a full-time paid residency. More specifically, the components of each leadership academy will include the following:

- ***Rigorous recruitment and selection***, leveraging lessons learned from the NYC Leadership Academy, the New Leaders for New Schools programs, and other programs to ensure that program participants have the expertise, commitment, and dispositions to serve as transformational school leaders. Leadership academy and LEA leaders will work together to identify and recruit individuals who are deeply committed to improving low-achieving schools and will make a three-year, post-degree commitment to work in those schools. Both experienced teachers and individuals with leadership experience in other contexts will be considered.
- ***Cohort-based experiences***, with aspiring school leaders participating in cohorts of 20 to 25 peers, to enable the development of a meaningful professional learning community. Evidence of the advantages of cohort models is provided by Davis *et al*. (2005), Dorn *et al*. (1995), Muth & Barnett (2001), and other researchers.
- ***An action-research, case-study curriculum focus***, which will engage participants in addressing issues similar to those they will face on the job, working through relevant data, problem identification, consideration of alternative solutions, and decision-making. The action-research projects and cases will be aligned with the NC Standards for School Executives and will be tied to educational leadership literature and research.
- ***A blended faculty of academics and practitioners***, with workshops and seminars co-led by teams of university faculty, exemplary LEA leadership practitioners, and others with extensive school leadership experience.
- ***Site visits to high-performing, high-poverty schools***, to provide concrete models of leadership approaches and school cultures that produce strong achievement results with student populations similar to those in which the participants will be placed.

- ***Full-time, year-long, clinical residency experience***, during their second year in the program, will engage participants in meaningful school-based activities under the direction of an on-site principal mentor, a leadership academy supervisor, and an executive coach. As a primary component of the leadership academy experience, supervised clinical residencies will allow aspiring school leaders to solidify their knowledge by applying it to authentic situations (Cordeiro & Smith-Sloan, 1995; Murphy, 1992, 2002) and will facilitate growth in their educational orientation, perspectives, concepts, language, and skills (Crow and Matthews, 1998).
- ***Weekly full-cohort, continued learning during the residency year*** that will provide just-in-time learning for immediate problems and continue to develop aspiring leaders' skills.
- ***Multi-faceted support structure,*** involving a mentor with extensive school leadership experience, a leadership academy supervisor, and an executive coach. The mentors, supervisors, and coaches will be carefully selected and provided with initial training and ongoing support. In addition to in-person meetings, they will make frequent use of online exchanges.
- ***Coordination with the NCDPI District and School Transformation Initiative,*** described in Section E2, to ensure consistency and coordination when working in the same districts and schools. Action research, case studies, and residency responsibilities will often involve direct work with this NCDPI effort to turn around the lowest-achieving schools.
- ***Job placement support***, provided by the leadership academy in conjunction with participating LEAs to ensure appropriate matches of aspiring leaders to the schools in which they are placed.
- ***Induction support,*** involving ongoing professional development through a two-year induction period after the participant assumes a school leadership role, during which leadership academy principals will continue to engage with their cohort, coaches, mentors, and supervisors in furthering their leadership skills.
- ***Dynamic feedback and improvement loops***, involving a systematic evaluation of programs, coursework, mentors, supervisors, and coaches to ensure continuous and evidence-driven improvement. The NC RttT Evaluation group, described in Section A***, will conduct this evaluation.

- ***Incentives for participants,*** including tuition toward a Master's degree in School Administration, release time to participate, hiring preference with the participating LEAs, travel costs for site visits, early career support, and program materials. The State is seeking private sector support to provide a laptop computer for each participant.

Initial design of the leadership academies program is underway, led by Dr. Bonnie Fusarelli and Dr. Matt Militello of NC State University, Dr. Shirley Prince, Executive Director of the NC Principals and Assistant Principals Association, and Dr. Janice Davis, Vice President of School Development for the NC New Schools Projects, all of whom have leadership experience at the school, district, and/or state levels. They are working closely with representatives from LEAs, NCDPI, and NCAE. The work will be enhanced by a partnership with the New York City Leadership Academy (see letter of support, Appendix 9) and by support from two national leaders, Drs. Michelle LaPointe and Tricia Browne-Ferrigno, who bring lessons from related work, including the Kentucky Collaborative Model for Developing School Leaders for High-Need Schools and the school leadership program studies commissioned by the Wallace Foundation. Teach for America representatives also are providing input, and we anticipate that the regional leadership academies will provide a career path for Teacher for America teachers who are interested in moving into leadership roles.

The initial design calls for seven core learning experiences (courses linked to embedded field activities/action research projects): These experiences include the following:

1. Teacher Empowerment & Leadership
2. Human Resource Management
3. School Law for Administrators
4. Resource Support & Sustainability
5. School & Community Engagement
6. Administrative Leadership in Professional Learning Communities
7. Leading & Transforming School Culture, Contexts & Challenges of School Improvement.

These experiences will culminate in a Capstone Internship Experience consisting of a summative 360-degree assessment of previously-completed course artifacts, coupled with coaching and mentoring feedback to create an individualized plan to remediate any remaining leadership deficiencies during the internship. As a set, these seven learning experiences address all of the NC School Executive Standards.

The first of the three planned academies, the Northeast Leadership Academy, will open with a cohort of 25 candidates during Summer 2010 in NC's northeast region to serve the low-achieving rural schools clustered in seven counties in that region. The locations of the other two regional leadership academies will be determined through a proposal process in Fall 2010. All three academies will be fully operational starting in 2011-12, and will provide 75 new principals per year beginning with the first two-year cohort, which will be ready to assume principal positions for the 2013-2014 school year. These RLAs will be demonstration sites that will both serve as models for additional regional leadership academies and inform program development and improvement in other university-LEA partnerships.

While the regional leadership academies will focus on preparing new leaders, there is also a critical need for effective professional development for current principals. The academies will coordinate with the ongoing coaching of principals of the lowest-achieving schools provided by the NCDPI District and School Transformation staff (see Section E2) and the programs for principal professional development described in Section D5. In addition, teacher-focused initiatives described below in this section will help LEAs replace teachers who move into administrative roles.

2. Expand Teacher Recruitment and Licensure Programs to Address State Needs

The data summarized in the Section D Overview above clearly indicate that NC needs additional effective teachers in mathematics and science, at both the middle and high school levels, and in special education. NC also is experiencing rapid growth in the population of limited English proficiency students and, consequently, the need for teachers prepared to work with these students. These needs are particularly critical in low-achieving schools in which the teacher retention rate, level of teacher experience, and

teacher effectiveness are all lower than in higher-achieving schools. To meet these needs across both the rural and urban areas of the state, we propose three initiatives to expand teacher recruitment and licensure programs:

a. Expand the current Teach for America program, which already has proven successful at improving student academic growth;
b. Create an NC Teacher Corps program, modeled in part on Teach for America but designed to recruit and prepare NC college graduates to teach in NC high-need schools not served by Teach for America; and
c. Improve the preparation novice teachers – particularly lateral entry teachers and out-of-state transfer teachers – who our analyses show to be less effective as a group than teachers who enter the profession through other pathways.

Each initiative involves LEA, University, and NCDPI partnerships, along with other partners, such as Teach for America, the National Board for Professional Teaching Standards, and the NC Teachers Academy.

To provide incentives to support teacher recruitment and retention in the lowest-achieving schools, NC will provide *every* new teachers who chooses to work in the lowest-achieving schools – regardless of her or his point of entry (through TFA, through the NC Teacher Corps, through lateral entry, or through traditional routes) – with a voucher that can be used for either:

- The forgiveness of student loans for each year of teaching;
- Tuition for obtaining a Master's degree in education, educational administration, or the content area in which she or he teaches;
- Housing; or
- Any combination of the three.

The value of the voucher will be equivalent to the cost of two semesters of coursework, two courses per semester, at an in-state degree-granting program. We also will explore extending a model already used in two rural LEAs in NC (Hertford and Dare), with support from the State Employees Credit Union, to provide housing units with subsidized rent, both as an additional incentive and to help create a stronger sense of community among new teachers. In addition, these teachers will be eligible for the performance-based bonus described in Section D2.

Increase the number of Teach for America teachers in high-need rural and urban schools

Teach for America (TFA) teachers serve in many of the highest-need schools in NC, based upon data showing student achievement levels and the number of students eligible for free or reduced-price lunches. Since the TFA program is designed to meet the needs of the schools and districts it serves, TFA teachers often teach hard-to-staff subjects and specialty areas: over half teach math, science, special education, or English as a second language. The findings of a 2007 Urban Institute study (Xu *et al.*, 2007) using NC high school data from 2000 through 2006 show that TFA teachers are more effective, as measured by student exam performance, than traditional teachers. The positive TFA results are robust across subject areas, but are particularly strong for math and science classes. In addition, the study found a positive effect for TFA teachers across all levels of student achievement, an effect that was larger than the positive effect of additional teacher experience. These findings are verified by a recently completed State-sponsored, large-scale study (Henry *et al*., 2010), from which relevant summary tables are provided in Appendix 26. The results of this study show that TFA teachers are significantly more effective than teachers prepared in UNC traditional programs in teaching high school overall; in high school math, English, and science; and in middle school mathematics. The differences are statistically and educationally significant. For example, students of TFA teachers show an increase in middle school mathematics test scores of approximately one half of a year of learning over students of other teachers. Together, the Xu *et al*. (2007) and Henry *et al*. (2010) reports verify that TFA teachers, all of whom are placed in high-need schools, are more successful in increasing student achievement than are other novice teachers, particularly in science and mathematics.

NC has demonstrated strong support for TFA for many years, and the organization currently has a $900,000 recurring allocation from the State, split between the Eastern (largely rural) region, which currently has 165 TFA teachers, and the Charlotte (urban) region, which currently has 230 TFA teachers. Given the demonstrated effectiveness of TFA teachers, we propose, as part of the RttT initiative, to increase the number of TFA teachers in NC schools from 395 during the 2009-10 school year to 550 over the next four years, with the major expansion taking place in low-performing Eastern rural schools in coordination with the school turnaround plans described in Section E2. The TFA letter of support for this plan is provided in Appendix 9.

TFA members must receive a teaching credential before they are hired by school districts or individual schools, and, like all lateral entry teachers in NC, they must meet specific requirements to be considered "highly qualified," as defined by Federal law. Previously, all TFA members in NC participated in a customized licensure cohort with one of two university partners, East Carolina University or UNC-Charlotte. As noted in Section D1, in May 2010, the NC State Board of Education passed a resolution making third-year TFA teachers eligible for full (Continuing) licensure.

Develop a North Carolina Teacher Corps to recruit in-state talent for high-need schools not served by TFA

While expansion of the TFA cohort in NC will help address teacher needs in Charlotte-Mecklenberg and the seven eastern LEAs that have established TFA programs, TFA is not currently prepared to expand to serve other regions of the state that have similar needs. Therefore, teacher recruitment needs in LEAs in the rural Southeast and Far West, as well as most of the central "urban crescent" of the state (Wilmington, Fayetteville, Raleigh, Greensboro, and Winston-Salem), are not met by TFA. In addition, there are many graduates of NC colleges and universities who are interested in a TFA-type program. In 2009, TFA received applications from 952 North Carolina seniors and graduate students, but was only able to accept 136. To address NC's unmet recruitment needs and capitalize on the success of the TFA model, we therefore propose to create a *North Carolina Teacher Corps* – modeled in large part on TFA – that will recruit exclusively from in-state public and private institutions and place teachers in NC schools. Providing this experience for NC graduates will lead to higher teacher retention rates, since most of the graduates will be from NC and the program will aim to place candidates in regions where they have family or other connections and are interested in residing.

The NC Teacher Corps will require a minimum two-year commitment and will provide an intensive summer training component, ongoing mentoring and coaching, and the opportunity to earn NC licensure. Lessons learned from the research cited above that has been conducted with the TFA program on best practices for preparing these teachers will inform the development of the NC Teacher Corps. The program design will also be informed by lessons learned from several local-level programs, such as the rural Catawba Valley Homegrown Teaching Scholars Program in Western NC and the urban Guilford County Innovative and Experimental Lateral Entry Program, as it develops a structure that meets the needs of schools in the Western, Southeastern, and urban NC contexts.

Recruitment may begin as early as high school, when programs like the NC Association of Educators' Teacher Cadet program first introduce young North Carolinians to teaching as a career.

The NC Teacher Corps will be part of the LEA-NCDPI-UNC partnership described in the Section D Overview. Detailed planning of the NC Teacher Corps program will take place during the fall semester of 2010-2011, so that arrangements with participating schools can be in place and recruitment can begin with the graduation class of 2011, placing the first cohort in schools at the start of the 2011-2012 school year. For its first two years, the program will recruit primarily graduates to teach math or science at the middle or high school levels, as well as special education teachers, since these are currently the State's highest-need areas, though recruitment targets will vary based on each LEA's greatest needs. We plan for the NC Teacher Corps program to recruit 50 new teachers in its first year, and 100 each year thereafter. Candidates will be placed in LEA cohorts, so that each Corps member will part of a localized support community of at least four other members. This cohort-based approach also will facilitate the ability of NC Teacher Corps program leaders to monitor and mentor members, as well as their ability to provide enough teachers to a given school or LEA to have an immediate impact.

Provide an Induction Support Program for New Teachers in High-Need Schools

There are multiple components to our overall approach to improving the effectiveness of teachers already placed in high-need schools. The NC Education Evaluation System, described in Section D2, will identify those who are not effective, leading to their participation in targeted professional development to improve their performance and, when necessary, to their dismissal. The NC Professional Development Initiative, described in Section D5, will provide ongoing, job-embedded professional development to help improve the effectiveness of all teachers, including those in high-need schools. The teachers in the 5% lowest-achieving schools already receive classroom coaching, as described in Section E2. However, in addition to these supports for current teachers, our data on teacher recruitment, teacher retention, and student achievement in high-need schools lead to the conclusion that more intensive induction support is needed for new teachers in these schools to improve student learning and close achievement gaps.

Our lowest-achieving and other high-need schools tend to have lower teacher retention rates than other schools, so they have more novice teachers and fewer experienced teachers (Reiman *et al*., 2007). These schools also have high percentages of lateral entry teachers and teachers who were trained out-of-state. These two groups comprise nearly 45% of the overall NC teacher workforce, with an even higher concentration in high-need schools. Unfortunately lateral entry and out-of-state teachers tend to be less effective than teachers prepared by UNC pre-service programs (Henry *et al*., 2010, see Appendix 26). Therefore, improving the effectiveness of these teachers in high-need schools is an important part of addressing the equitable distribution of teachers in NC.

The proposed Induction Support Program for New Teachers in High-Need Schools (Induction Support Program) will provide a three-phase induction program, modeled in part after the Teach for America support program for their teachers in the same types of schools. The program begins prior to the teacher's first day in the classroom and continues for a 3-year induction period, at the conclusion of which successful teachers will be eligible for their full (Continuing) license.

The program goal is to improve the effectiveness of novice teachers through intensive and relevant induction support, aligned to each teacher's individual teaching assignments and school contexts, by helping them:

a. Understand and apply the NC Standard Course of Study at the grade level and content area they will be teaching;

b. Engage in instructional planning focused on effective teaching practices, student learning opportunities, effective use of data, and classroom lessons aligned with the Standard Course of Study goals; and

c. Address the specific challenges of working with diverse groups of students, many of whom will have a history of low achievement, in the context of high-need schools.

The program will be comprised of: an intensive one-week "boot camp" before the start of their first school year; six full-day follow-up sessions, three during each of the fall and spring semesters during each of years 1 and 2 (with the schools providing the necessary release time); and direct classroom coaching, some onsite and some online, with at least one coaching session per month continuing for the full three years of the induction period, after which the teachers will be ready to apply for their full (Continuing) license. This

model builds upon the coaching programs already in place in many high need schools, but strengthens the supports provided to novice teachers.

Practicing and retired master teachers and leaders will be recruited as workshop leaders and coaches, with rigorous criteria for selecting these individuals and a training program to prepare them for the role. The coaching process will incorporate: face-to-face time with administrators; mentoring; planning and collaborative time for teachers; and involvement in beginning teacher professional learning communities. Novice teachers will be monitored and evaluated at regular and frequent intervals throughout this 3-year induction period. Professional growth plans will be adapted as needed, based on evaluation outcomes, to better improve teacher effectiveness and student achievement.

The Induction Support Program will be administered at a regional level so that teachers from multiple schools and LEAs in a given area will participate as a cohort. The cohorts will be divided by grade level and subject area, so that the work will focus on discipline- and age-specific teaching and learning. The work with elementary teachers will focus in particular on teaching reading – early reading skills for the lower grades and reading across the content areas in the upper grades. Some time also will be spent on elementary mathematics, focusing on strategies for taking students through the sequence of concrete, representation, and abstract understandings of number and operations concepts, to prepare them for middle school mathematics. For middle school mathematics teachers, the work will focus on preparing students to be successful in Algebra 1, since that is a critical gateway course for students' future education and career options. For other middle school teachers, the primary focus will be reading comprehension and effective communication across the content areas they teach. The high school teachers will be grouped by the four core curriculum areas – mathematics, science, social studies, and English language arts – with intensive work on both the student learning standards and approaches to engaging their students.

Participation in the Induction Support Program will fulfill the requirement for six of the semester credit hours required of lateral entry teachers. Other teachers will be able to earn continuing education units. Registration for the university-based credits also will provide a mechanism for organizing the cohorts and formally tracking and monitoring the progress of these new teachers.

The Induction Support Program will be organized and coordinated at the state level by the NCDPI in conjunction with the UNC-General Administration, and delivered regionally through a collaborative among LEAs, the NCDPI District and School Transformation division (see Section E2), universities, National Board Certified Teachers, and non-profit partners. The program will be planned and organized during the 2010-2011 school year and initiated with new teachers in lowest achieving schools in four regions of the State during the summer of 2011, in preparation for their starting in classrooms in the fall of 2011. The program will be expanded to all eight regions of the State for the second year. The program is planned to serve 1,200 new teachers in the lowest-achieving schools in local area cohorts each year The teachers will be compensated for the additional time required.

An evaluation of the Induction Support Program will be conducted through UNC's statewide Teacher Quality Research effort (described in greater detail in Section D4), which links teacher preparation routes and individual programs to K-12 student achievement growth. The research will be used as an evidence-based tool to monitor and evaluate the program's success by linking new teachers' program participation to their students' achievement. The research-based evidence also will be used to improve the program's professional development curriculum.

3. LEA Strategic Staffing Initiatives

In addition to recruiting, preparing, and retaining new teachers in low-achieving schools, it is also critical to have substantial numbers of experienced teachers with proven track records in these settings to provide a balanced staff and opportunities for experienced teachers to contribute to professional learning communities, community relations, and school leadership. We also note recent research showing significant peer effects on teachers, which suggest that high-achieving teachers have positive impacts on their colleagues and therefore on all the students in the school (Jackson & Bruegmann, in press). The initiatives described above in this section all focus on recruiting, preparing, and retaining new teachers and principals. Strategic staffing initiatives take a different approach, seeking to optimize the use of existing human capital in a school, community, or region—that is, to deploy strategically capacities that already are available to where they are most needed.

Several strategic staffing initiatives are underway in NC, through either Federal Teacher Incentive Fund grants or NC funding. For example, in an innovative strategic staffing initiative in Charlotte-Mecklenburg Schools, a highly effective principal recruited to move to a low-performing school can select five teachers to move with her or him, and she or he also can select up to five staff in the low-performing school to be moved elsewhere. In the NC-funded Collaborative project, financial incentives are provided to teachers and principals to move to or stay in high-need rural schools, through incentive bonuses for recruitment, retention, student achievement gains, and professional activities. This project is concerned with both retaining high-achieving teachers already in these schools as well as attracting more such teachers. Other programs, such as one in Davie County, provide housing and other incentives to attract qualified teachers, while others focus on working conditions and leadership roles, which have been shown to be very important factors influencing teacher retention (Carroll, 2007; Reiman *et al.*, 2007).

With the support of NC RttT funding, NCDPI will encourage and provide technical assistance to LEAs and their communities to help them plan and implement strategic staffing initiatives to meet their local needs. We know that challenges and effective strategies will vary by locale. For example, urban districts may use incentives to encourage individuals to move from a higher-achieving school to help improve a lower-achieving school, while rural districts may need ot incentivize individuals to relocate from another area of NC. Support for LEA strategic staffing initiatives will include the following:

- Engage the Strategic Management of Human Capital in Education group from the Center for Policy Research in Education and the National Commission for Teaching and America's Future (NCTAF) to provide workshops, consultation and technical assistance to LEAs about strategic staffing strategies. These organizations have been selected as national leaders in research-based work in this area, with the first focusing largely on incentive models and the second focused on the effective use of teaming and community resources.
- Foster collaborations with the Bill & Melinda Gates Foundation-funded NC STEM Community Collaborative in communities that are interested in considering strategic staffing initiatives.

- Share information during LEA leadership institutes (see Section D5) about current strategic staffing initiatives and their results, both from within NC and from other states.
- Work with the NC Network of Grantmakers, which comprises the major foundations funding education projects in NC and is willing to partner with the state to develop or expand programs that provide incentives in hard-to-staff subject areas and schools or that reward teachers based on performance and contributions, with the goal of identifying model practices that can be incorporated into the statewide or local compensation system. These Foundations also have expressed interest in exploring approaches that involve affordable housing, leadership opportunities, part-time arrangements with content experts from industry, education loan forgiveness programs, and the NCTAF Learning Teams model.
- Provide evaluations of the costs and benefits of the local strategic staffing initiatives to inform decisions about whether they should be extended, modified, or discontinued.

4. Provide effective teachers via virtual and blended courses.

Established by the NC eLearning Commission in 2005, the NC Virtual Public School (NCVPS) provides courses that augment those available locally to equalize educational opportunities statewide and, in many cases, provide an effective online teacher when a qualified teacher is not available locally. The NCVPS is committed to raising achievement and closing learning gaps with 21st-century innovation by providing access to world-class learning opportunities for all NC students.

As of the fall of 2009, the NCVPS offers 72 courses ranging from AP and other college credit courses, to honors and general courses in Math, Science, English, Social Studies, World Languages, Arts, CTE, and Healthful Living, to courses for credit recovery. Since its inception in 2007, the NCVPS has served over 60,000 students and is now second only to Florida in terms of enrollment in a state Virtual School.

NCVPS employs over 300 adjunct teachers, all of whom are certified to teach in NC and are considered highly qualified by the *No Child Left Behind* criteria. The teachers receive special training in online teaching and a range of interactive technologies to engage

21st-century learners, including video, interactive whiteboards, wikis, active worlds, and online discussion tools. An independent evaluation shows that student achievement is comparable to or exceeds the achievement of students in traditional courses (Oliver *et al*., 2009).

Virtual course delivery enables teaching across time and distance, so specialists in hard-to-staff topics can provide courses to schools in which a qualified teacher is not available. This enhanced availability also expands the population of potential teachers, since teachers can take on virtual course duties for additional compensation, and qualified retired teachers can teach online in a part-time position. Some teachers have discovered that they prefer to teach online and can thereby serve students across multiple schools, who can take an online class together. In most cases, a blended model is used (in which an onsite facilitator monitors student work and is available to meet with individual students), rather than a pure virtual model.

Expansion of Virtual Course Offerings

NC has made a substantial financial commitment to the NCVPS, with NC funding of more than $31 million from 2006 to 2010, and this support will continue. As one of our RttT initiatives, we will expand virtual school courses and the pool of teachers, with a specific goal of improving learning opportunities for students in low-achieving schools. Specifically, RttT funding will enable the NCVPS to develop and deliver additional virtual courses in mathematics and science areas that are required for high school graduation. These courses will be designed specifically for low-performing students who are at risk of failure in these courses, so will provide levels of support for students learning, pacing, and structuring designed specifically for this student population. Teachers selected for these courses will have had prior success working with at-risk students. The NCVPS will also work with the participating LEAs and schools to provide for onsite monitoring and, when necessary, tutoring (either online or onsite) to further support the students. These targeted virtual courses will ensure that students in low-achieving schools have access to effective teachers, quality course content designed to meet their needs, and additional supports to help them successfully complete the courses.

Blended Courses

In addition to supporting the expansion of virtual course offerings, RttT funds also will be dedicated to developing blended courses in which onsite teachers share teaching duties with more experienced online teachers, again with a focus on serving students in the lowest-achieving schools. Whereas NCVPS expansion provides access to more courses, blended courses work to develop the talent of teachers already working in the lowest-performing schools by allowing them to work side-by-side – virtually – with more experienced teachers, while eliminating the geographic boundaries that might otherwise prevent these partnerships from being possible.

Blended course instructors will serve roles that are somewhat different from the roles played by traditional NCVPS instructors. In addition to co-teaching, they will make monthly visits to the schools in which their co-teachers work. During these visits, they will be able to interact with their students in person, and observe and provide feedback to their co-teachers. Due to the mentoring roles they will play, blended course instructors will be carefully selected from the larger pool of virtual instructors. Because they will be required to make periodic site visits, blended course instructors typically will teach courses in geographically defined areas within driving distance of their places of residence; they will be compensated for their travel at the current state rate.

Educator Preparation and Professional Development

The initiatives described in this section are only the first part of the broader plan to transform teaching and school leadership across North Carolina. Section D4 will take up the evaluation and improvement of teacher and principal preparation programs, and Section D5 will describe the plan for unifying, coordinating, evaluating, and improving professional development statewide.

Evaluation

Specific questions, data sources, and timelines governing the evaluation of these initiatives are included in Appendix 7.

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*teachers*)**					
Percentage (and number) of teachers in schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	20.6	21.2	21.9	22.5	***23.2***	Elem
	(1,391)	(1,433)	(1,476)	(1,520)	(1,566)	
	17.6	18.2	18.7	19.3	***19.9***	Mid
	(573)	(590)	(608)	(626)	(645)	
	23.9	24.6	25.3	26.1	***26.9***	High
	(668)	(688)	(709)	(730)	(752)	
Percentage (and number) of teachers in schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	30.3	31.2	32.1	33.1	***34.1***	Elem
	(2,955)	(3,044)	(3,135)	(3,229)	(3,326)	
	33.3	34.3	35.4	36.4	***37.5***	Mid
	(1,481)	(1,525)	(1,571)	(1,618)	(1,667)	
	25.5	26.3	27.1	27.9	***28.7***	High
	(972)	(1,001)	(1,031)	(1,062)	(1,094)	
Percentage (and number) of teachers in schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	30.8	27.7	24.9	22.4	***20.2***	Elem
	(2,075)	(1,868)	(1,681)	(1,513)	(1,361)	
	32.9	29.6	26.6	24.0	***21.6***	Mid
	(1,068)	(961)	(865)	(779)	(701)	
	29.9	26.9	24.2	21.8	***19.6***	High
	(838)	(754)	(679)	(611)	(550)	
Percentage (and number) of teachers in schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	19.4	17.5	15.7	14.1	***12.7***	Elem
	(1,893)	(1,704)	(1,533)	(1,380)	(1,242)	
	18.0	16.2	14.6	13.1	***11.8***	Mid
	(801)	(721)	(649)	(584)	(526)	
	23.3	20.9	18.8	17.0	***15.3***	High
	(887)	(798)	(718)	(647)	(582)	

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*principals*)**					
	Reading					
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	15.1	15.5	16.0	16.5	***17.0***	Elem
	(59)	(61)	(63)	(64)	(66)	
	16.7	17.2	17.7	18.2	***18.8***	Mid
	(25)	(26)	(27)	(27)	(28)	
	26.1	26.9	27.7	28.6	***29.4***	High
	(40)	(41)	(42)	(44)	(45)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	35.9	37.0	38.1	39.3	***40.4***	Elem
	(171)	(176)	(181)	(187)	(192)	
	30.6	31.5	32.5	33.4	***34.4***	Mid
	(56)	(58)	(59)	(61)	(63)	
	18.8	19.3	19.9	20.5	***21.1***	High
	(34)	(35)	(36)	(37)	(38)	
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	32.0	28.8	25.9	23.3	***21.0***	Elem
	(125)	(113)	(101)	(91)	(82)	
	35.3	31.8	28.6	25.8	***23.2***	Mid
	(53)	(48)	(43)	(39)	(35)	
	26.1	23.5	21.2	19.1	***17.2***	High
	(40)	(36)	(32)	(29)	(26)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	13.4	12.1	10.9	9.8	***8.8***	Elem
	(64)	(58)	(52)	(47)	(42)	
	15.8	14.3	12.8	11.6	***10.4***	Mid
	(29)	(26)	(23)	(21)	(19)	
	24.3	21.9	19.7	17.7	***15.9***	High
	(44)	(40)	(36)	(32)	(29)	

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*principals*)**					
	Math					
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	22.5	23.2	23.9	24.6	***25.3***	Elem
	(88)	(91)	(93)	(96)	(99)	
	15.3	15.8	16.3	16.8	***17.3***	Mid
	(23)	(24)	(24)	(25)	(26)	
	21.9	22.5	23.2	23.9	***24.6***	High
	(35)	(36)	(37)	(38)	(39)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	31.3	32.2	33.2	34.2	***35.2***	Elem
	(149)	(153)	(158)	(163)	(168)	
	37.7	38.8	40.0	41.2	***42.4***	Mid
	(69)	(71)	(73)	(75)	(78)	
	21.6	22.2	22.9	23.6	***24.3***	High
	(41)	(42)	(43)	(45)	(46)	
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	26.3	23.7	21.3	19.2	***17.3***	Elem
	(103)	(93)	(83)	(75)	(68)	
	31.3	28.2	25.4	22.8	***20.6***	Mid
	(47)	(42)	(38)	(34)	(31)	
	31.9	28.7	25.8	23.2	***20.9***	High
	(51)	(46)	(41)	(37)	(33)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	19.1	17.2	15.5	13.9	***12.5***	Elem
	(91)	(82)	(74)	(66)	(60)	
	14.2	12.8	11.5	10.4	***9.3***	Mid
	(26)	(23)	(21)	(19)	(17)	
	21.6	19.4	17.5	15.7	***14.2***	High
	(41)	(37)	(33)	(30)	(27)	

Performance Measures for (D)(3)(i)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets (*principals*)**					
	Science					
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	12.2	12.5	12.9	13.3	***13.7***	Elem
	(45)	(46)	(48)	(49)	(51)	
	7.4	7.7	7.9	8.1	***8.4***	Mid
	(11)	(11)	(12)	(12)	(12)	
	20.1	20.7	21.4	22.0	***22.7***	High
	(32)	(33)	(34)	(35)	(36)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are highly effective (as defined in this notice).	35.9	37.0	38.1	39.2	***40.4***	Elem
	(167)	(172)	(177)	(182)	(188)	
	38.0	39.1	40.3	41.5	***42.8***	Mid
	(68)	(70)	(72)	(74)	(77)	
	27.8	28.7	29.5	30.4	***31.3***	High
	(54)	(56)	(57)	(59)	(61)	
Percentage (and number) of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	38.1	34.3	30.9	27.8	***25.0***	Elem
	(141)	(127)	(114)	(103)	(93)	
	48.0	43.2	38.9	35.0	***31.5***	Mid
	(71)	(64)	(58)	(52)	(47)	
	27.7	24.9	22.4	20.2	***18.2***	High
	(44)	(40)	(36)	(32)	(29)	
Percentage (and number) of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	13.8	12.4	11.1	10.0	***9.0***	Elem
	(64)	(58)	(52)	(47)	(42)	
	9.5	8.5	7.7	6.9	***6.2***	Mid
	(17)	(15)	(14)	(12)	(11)	
	22.2	19.9	18.0	16.2	***14.5***	High
	(43)	(39)	(35)	(31)	(28)	

Notes for (D)(3)(i)

As noted in the response to criterion D(2), results from all LEAs of the new Teacher Evaluation Process (TEP) will not be available until the completion of the 2009-2010 school year. Also as noted in the response to that criterion, every teacher and principal evaluation will not include pre-approved student growth measures until 2010-2011. Since TEP results are not yet available statewide, and since all valid student growth measures were not in use across all LEAs for the 2009-2010 school year, the figures presented in this table of proportions of highly effective and ineffective teachers (as well as the proposed targets) are based solely on EVAAS estimations of teacher effectiveness in subjects currently tested by the state. Furthermore, assessment data used in this process did not include re-test data. As a result, these estimations represent only approximations of the true proportion of highly effective and ineffective teachers across all subjects statewide. A more precise baseline will be established (and more accurate targets will be set) at the end of the 2010-2011 school year, after the first complete statewide collection and aggregation of measures of teacher and principal effectiveness that include student growth measures.

Projections reflect goals of 10% decreases per year in the number of ineffective teachers and principals for each category, and 3% increases per year in the number of highly effective teachers and principals for each category; projections assume a greater movement of teachers from ineffective to effective status than from effective to highly effective status. Projections also assume static teacher and principal populations; targets will be adjusted to match growth in teacher and principal populations. Principal baselines and targets are disaggregated by school-level performance on math, reading, and science tests. Estimations are based on the following tests: EOG reading (grades 3-8), mathematics (grades 3-8), and science (grades 5 and 8) tests; EOC Algebra I and II, Geometry, English I, Physical Science, Biology, Chemistry, Physics, Civics & Economics, and US History. Principal effectiveness is estimated based on overall school performance on applicable tests for reading, mathematics, and science.

Note: By virtue of the RttT designations, a small number of teachers (*e.g.*, teachers in schools that are high-minority but low-poverty, or low-minority but high-poverty) are double-counted.

General data to be provided at time of application:	
Total number of schools that are high-poverty, high-minority, or both (as defined in this notice).	805
Total number of schools that are low-poverty, low-minority, or both (as defined in this notice).	965
Total number of teachers in schools that are high-poverty, high-minority, or both (as defined in this notice).	30,656
Total number of teachers in schools that are low-poverty, low-minority, or both (as defined in this notice).	39,212
Total number of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice).	805
Total number of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice).	965

High-poverty = top quartile of schools ranked by proportion of students applying for free and reduced-price lunch; ***high-minority*** = top quartile of schools ranked by proportion of non-white students

Performance Measures for (D)(3)(ii)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	
General goals to be provided at time of application:	**Baseline data and annual targets**					
Percentage of mathematics teachers who were evaluated as effective or better.	75.0	77.3	79.6	82.0	***84.4***	Elem
	(6,990)	(7,200)	(7,416)	(7,638)	(7,867)	
	75.0	77.3	79.6	82.0	***84.4***	Mid
	(3,913)	(4,030)	(4,151)	(4,276)	(4,404)	
	75.0	77.3	79.6	82.0	***84.4***	High
	(3,225)	(3,322)	(3,421)	(3,524)	(3,630)	
Percentage of science teachers who were evaluated as effective or better.	75.0	77.3	79.6	82.0	***84.4***	Elem
	(3,276)	(3,374)	(3,476)	(3,580)	(3,687)	
	75.1	77.3	79.6	82.0	***84.5***	Mid
	(906)	(933)	(961)	(990)	(1,020)	
	75.1	77.3	79.7	82.0	***84.5***	High
	(2,329)	(2,399)	(2,471)	(2,545)	(2,621)	
Percentage of special education teachers who were evaluated as effective or better.	N/A	TBD	TBD	TBD	TBD	
Percentage of teachers in language instruction educational programs who were evaluated as effective or better.	N/A	TBD	TBD	TBD	TBD	

See main text for Sub-section D(2) and note above re: projection principles and limitations in current estimations of effectiveness. The effectiveness of teachers in currently untested subjects and fields (in this case, special education and language instruction teachers) will not be fully estimable before the 2010-2011 school year. Current estimations of mathematics and science teacher effectiveness are limited to teachers of tested mathematics and science courses. Estimations for mathematics are based on EOG tests for grades 3-8 and EOC tests for Algebra I, Algebra II, and Geometry. Estimations for science are based on EOG tests for grades 5 and 8 and EOC tests for Physical Science, Biology, Chemistry, and Physics.

General data to be provided at time of application:	
Total number of mathematics teachers.	12,193
Total number of science teachers.	9,358
Total number of special education teachers.	6,605
Total number of teachers in language instruction educ. progs.	932

(D)(4) Improving the effectiveness of teacher and principal preparation programs *(14 points)*

The extent to which the State has a high-quality plan and ambitious yet achievable annual targets to—

(i) Link student achievement and student growth (both as defined in this notice) data to the students' teachers and principals, to link this information to the in-State programs where those teachers and principals were prepared for credentialing, and to publicly report the data for each credentialing program in the State; and

(ii) Expand preparation and credentialing options and programs that are successful at producing effective teachers and principals (both as defined in this notice).

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: One page

D.4. Improving the Effectiveness of Teacher and Principal Preparation Programs

D.4.i. Linking Student Achievement Data to Educator Preparation Programs

NC already has linked student achievement and growth data to students' teachers and principals. In addition, NC has linked teachers and principals prepared for credentialing within the UNC system to their preparation program, and used the linked data to evaluate the effectiveness of those preparation programs. Planned future evaluations will expand in scope to include assessment of NC independent college and university preparation programs. NC will publish an Educator Preparation Program report card that rates the effectiveness of each preparation program based on student achievement and student growth criteria.

Ground-Breaking Study of UNC Teacher Preparation Programs

NC links student achievement and growth data to teacher preparation programs. The UNC General Administration (UNC-GA), in close partnership with constituent UNC institutions that prepare teachers and principals, has completed the first phase of a new value-added accountability study of educator preparation programs (called *NC Teacher Quality Research*). Results from this first phase are outlined in *The Impact of Teacher Preparation on Student Learning in North Carolina Public Schools* (Henry e*t al*., 2010; Appendix 26). A primary component of the study is a quantitative evaluation of the impact of teacher preparation program graduates on student learning at the elementary, middle, and secondary levels. This initiative – one of the first of its kind in the country – has begun the process of examining program impact across grade levels, content-area subjects, and subpopulations of students, as well as across nearly a dozen different "portals" of entry into the profession (*e.g*., alternative and out-of-State programs, in addition to traditional in-State routes). Future evaluations also will discern the impact of principals and other school-based professionals on student achievement and provide evaluations of their preparation programs.

The implementation of the ABCs of Public Education accountability system (see Sections C2 and D2) has provided NC with the data necessary to study the differentiated impact that graduates of various educator preparation programs have on student achievement; in the first phase alone, the study utilized nearly 2 million test scores linked to over 140,000 classes.

Conclusions from the first round of the evaluation paint a mixed picture of the quality of teacher preparation in the State and suggest several directions for improvement. Overall, the study found that, at the high school and elementary school levels, teachers prepared by one of the UNC traditional undergraduate teacher education programs produce slightly more learning by their students than do teachers who entered NC public schools from other licensure pathways. But at the middle school level, the average student learning gains produced by teachers prepared by UNC undergraduate programs are no greater than those produced by other teachers. Across all three levels of schooling, the average gains produced by teachers from the UNC system's Master of Arts in Teaching programs are similar to those produced by teachers from all non-UNC sources.

UNC already has extended the study to identify the effects of different programs and routes into teaching. These more recent results differentiate among the 15 UNC teacher preparation programs, identifying which have more or less success at each grade level and subject area. They also differentiate the effects of preparation via NC private colleges and universities, out-of-state colleges and universities, and alternative entry programs, including Teach for America.

These findings are being used by UNC leadership to identify best practices for teacher preparation programs and to allocate future resources to expand the more effective programs. The findings also suggest that certain teacher preparation programs and routes must be improved if they are to produce effective teachers; indeed, some of these programs may require so much improvement that it may be more practical to simply discontinue the programs. The availability of this research and the ability to take action based on the analysis place NC in the unique position of being able to use quantitative evidence to strengthen preparation programs, with a goal of increasing student achievement and academic growth. UNC-GA, in close collaboration with NCDPI and LEA partners, will now build on this work to ensure that NC's public university teacher and principal preparation programs are models for the nation.

Next Steps: Gauging the Impact of a Wider Range of Programs

Several efforts will leverage this initial study results to move the State toward having comprehensive information regarding NC teacher and principal preparation programs:

- UNC-GA will continue to extend the accountability work described above to include targeted assessments of the specific effects of administrator preparation programs on student test score growth, student and teacher absenteeism, achievement of Federal and state accountability goals, teacher turnover, and working conditions in the schools the graduates of these programs lead.
- Following the example of NC's successful ABCs Report Card system for annual reporting of AYP and other measures of school achievement, the NCDPI, in partnership with UNC-GA, is developing a complementary public Educator Preparation Program report card, which includes easily understandable summaries of research results, as well as key summaries of current Federal Title II (Teacher Quality) reporting data. In addition, UNC-GA is developing a series of focused policy briefs that describe the research and statistical models as well as the results.
- In addition, UNC-GA will begin to explore options for involving NC's independent educator preparation programs more directly in the educator program evaluation.

D.4.ii. Expanding Successful Preparation and Credentialing Options

As described in Sections D1 and D3, NC is proposing expanding alternative certification options (*e.g.*, Teach for America, LEA-based licensure programs) that are producing effective teachers and principals, and the State also is creating a new *NC Teacher Corps* program, based in large part on the Teach for America model. UNC system teacher preparation programs have undergone revisions to align with the NC Teacher Standards (described in Section D2), and administrator preparation programs are currently completing a similar process to align with the NC School Executive Standards (also described in Section D2). Most significantly, the University of North Carolina has conducted workforce analyses and has developed plans to increase the number of teachers recruited and prepared in direct response to the projections of state needs, including special programs to recruit and prepare additional mathematics and science teachers. These plans already have begun to show positive outcomes.

NC's proposed expansions of alternative teacher and principal preparation and credentialing options have been described in Sections D1 and D3 above. The goal of these expansions is to provide more teacher and principal licensure candidates with the key elements of preparation programs whose graduates are most effective in impacting student achievement, building on the insights gleaned from the UNC *Teacher Quality Research* study described above. In addition, NC House Bill 536 (2007) directed the State Board to adopt new standards for school administrator preparation programs, and in response, all UNC system Master in School Administration (MSA)

programs are completing a re-visioning process mandated by the State Board, along with a degree reauthorization process mandated by UNC-GA. The re-visioning includes changes to course development, course content, scope and sequence of field experiences, and instructor credentials, all of which reflect the newly adopted North Carolina Standards for School Executives. The MSA programs have all submitted their planned program revisions to the UNC-GA review team, which is comprised of a panel of representatives from higher education, NCDPI, New Leaders for New Schools, and national licensure programs. The revised programs are also being reviewed by NCDPI on behalf of the State Board, and each program will need to obtain both UNC and NCDPI approvals in order to continue. Previously, the fifteen teacher preparation programs in the University of North Carolina system have completed a similar process to update their programs to align them with the Teacher Standards and Evaluation Process described in Section D2.

UNC Teacher Enrollment Growth Plan and Productivity Goals

The University of North Carolina system is addressing systematically the issues of teacher recruitment and preparation across its 15 Colleges of Education though a workforce needs analysis and a planning process for meeting those needs. The research described above will inform the plans moving forward to improve and expand effective teacher recruitment and preparation to meet projected state needs, with a special focus on mathematics and science teachers.

A workforce analysis completed by UNC-GA projects the annual number of newly licensed teachers needed in North Carolina based on historical data and also identifies other reliable labor market supply sources that contribute regularly to teacher supply. The analysis has determined the approximate number of new teachers that the 15 teacher preparation program in the UNC system should be producing on an annual basis in order to achieve greater equilibrium in teacher supply and demand at the state level and significantly reduce the classroom vacancy gap. Results from the workforce study have been used to establish recruitment plans and to substantiate the expansion of teacher productivity goals within the UNC system. Projection models through 2020-21 for overall and high-need areas have been prepared to guide institutional planning efforts.

According to the workforce analyses, North Carolina will need approximately 12,000 additional new teachers each year to fill classroom vacancies. Within five years, the number is projected to increase to almost 13,000. Currently, approximately 35% (4,300)

of North Carolina's supply of new teachers is prepared by the UNC system, which is the state's single largest supply source of new teachers. Due to the impact of the economic downturn, further analyses of overall teacher supply and demand are being conducted before finalizing the campus expanded productivity goals.

UNC has established an ambitious five-year plan to increase the supply of new teachers available to address the state's needs. UNC Chief Academic Officers are expanding productivity goals for overall traditional teacher education graduates, overall alternative licensure completers, and traditional and alternative goals for identified high-need licensure areas. As the system takes action in expanding institutional goals, major attention will be given to preparing more teachers in mathematics education, science education, middle grades education, and special education. Moving forward with the accountability plan, UNC Education and Arts & Sciences academic units will have a shared responsibility for meeting the campus goals established for mathematics and science high-need licensure areas, as well as a responsibility to assist in meeting the overall campus teacher productivity goals.

UNC Teacher Recruitment Initiative

Traditional strategies for recruiting individuals into the pipeline of potential teachers have not met the ambitious goals laid out in the teacher enrollment plan. In response to this, the UNC Teacher Recruitment Initiative was launched to develop a strategic plan to coordinate teacher recruitment efforts within the University. To accomplish this task, the University partnered with Noel-Levitz, a leading authority in the US in optimizing enrollment management on higher education campuses.

The purpose of the initiative was to consider perceptions of the teaching profession in developing a system-wide plan for teacher recruitment that is coordinated with the UNC Teacher Education Enrollment Growth Plan. The research question addressed through the study was targeted directly at recruitment to the teaching profession; *What are the attitudes, motivations, and primary sources of influence of prospective teachers that are behind North Carolina's teacher supply and demand data and trends?* The study had two primary components, an ***assessment phase*** designed to gain a better understanding of the current situation and a ***planning phase*** that translated initial findings into actionable strategies to meet NC's teacher supply and demand needs.

Results from the study have been used to identify critical strategies for inclusion in a comprehensive plan for teacher recruitment. Each UNC institution has prepared a campus-based plan that is aligned to the overarching system recruitment plan and also aligned to the enrollment growth targets for their respective.

Productivity results as of 2008-2009. Results from the UNC Teacher Recruitment Plan, Enrollment Growth Plan and Productivity Goals have proven these strategic efforts are working to increase the productivity of initially licensed teachers. The latest annual productivity data for 2008-09, the third year of these accountability plans, show overall increases in traditional graduates, alternative completers, graduate-level initial license graduates, as well as increases in mathematics, science, middle grades, and special education licensure areas. UNC's collective productivity increased by 372 new initially licensed teachers in 2007-08 from 3,983 to 4,355. UNC institutions increased their productivity in mathematics education (middle grades and secondary) by 27.7% and in science education (middle grades and secondary) by 39%. These latest results indicate that when accountability goals are established, strategic planning for recruitment is initiated and monitored, and funding is aligned to these efforts, UNC's campuses have responded. Funding to support UNC's overall goal of preparing more and better teachers and school leaders for North Carolina's public schools is aligned to and based on annual campus productivity and the effectiveness of the teachers produced.

UTeach. Another strategy to help address recruitment efforts in the areas of mathematics and science is a system-wide effort to establish programs, based on the UTeach model originated at the University of Texas, that provide an alternative track to teacher certification for science and mathematics majors. Participating campuses will develop the necessary courses and practica that together will constitute the program that undergraduate science and mathematics majors will follow to achieve teacher certification along with the completion of their bachelor's degree in science or mathematics. Participating campuses will identify or develop a series of courses in the school, college, or department of Education for the core education sequence, accompanied by disciplinary courses (mathematics, physics, biology, chemistry, and geology) in the College of Arts and Sciences on learning and teaching science and mathematics. The UNC-GA will assist these campuses in moving this newly designed program through the established guidelines and process for program approval with the UNC Board of Governors.

Performance Measures for (D)(4)	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
General goals to be provided at time of application:	**Baseline data and annual targets**				
Percentage of *public* teacher preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.[1]	100	100	100	100	100
Percentage of *independent* teacher preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.	0	0	TBD	TBD	TBD
Percentage of *public* principal preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.	100	100	100	100	100
Percentage of *independent* principal preparation programs in the State for which the public can access data on the achievement and growth (as defined in this notice) of the graduates' students.[2]	0	0	TBD	TBD	TBD

[1] Based on analyses of all existing EOC/EOG data; excluded is student achievement (and thus TPP analyses) for non-tested subjects.
[2] Only four ICUs have administrator preparation programs.

General data to be provided at time of application:	
Total number of *public* teacher credentialing programs in the State.	15
Total number of *independent* teacher credentialing programs in the State.	33
Total number of *public* principal credentialing programs in the State.	13
Total number of *independent* principal credentialing programs in the State.	4
Total number of teachers in the State.	99,730
Total number of principals in the State.	2,399

(D)(5) Providing effective support to teachers and principals *(20 points)*

The extent to which the State, in collaboration with its participating LEAs (as defined in this notice), has a high-quality plan for its participating LEAs (as defined in this notice) to—

(i) Provide effective, data-informed professional development, coaching, induction, and common planning and collaboration time to teachers and principals that are, where appropriate, ongoing and job-embedded. Such support might focus on, for example, gathering, analyzing, and using data; designing instructional strategies for improvement; differentiating instruction; creating school environments supportive of data-informed decisions; designing instruction to meet the specific needs of high need students (as defined in this notice); and aligning systems and removing barriers to effective implementation of practices designed to improve student learning outcomes; and

(ii) Measure, evaluate, and continuously improve the effectiveness of those supports in order to improve student achievement (as defined in this notice).

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). Any supporting evidence the State believes will be helpful to peer reviewers must be described and, where relevant, included in the Appendix. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Recommended maximum response length: Five pages

D.5. Providing Effective Support to Teachers and Principals

D.5.i. Providing Effective, Data-Informed Professional Development

The proposed North Carolina Professional Development Initiative (PDI) builds on already-strong regional and statewide professional development programs and resources to provide a comprehensive, targeted, seamless, and flexible system for all educators. PDI is powered by an ongoing needs assessment process that will pinpoint professional development needs at the LEA and school levels and assess the degree to which current resources exist in the State to meet those needs. Where existing resources do not exist, PDI will develop or broker them on behalf of the LEAs. PDI also will develop a cadre of Professional Development Leaders to serve as professional development resource developers, workshop leaders, professional learning community coaches, and content specific regional coaches. PDI will support the effective use of eLearning to enable new approaches to professional development and enhance existing approaches. It will provide professional development for principals and for LEA professional development leaders, supporting their design and implementation of professional development plans for their teachers. Finally, it will coordinate with LEAs and local professional development plans to ensure that all teachers throughout the state have access to effective professional development offerings that meet their needs.

NC Professional Development Initiative (PDI)

NC proposes to launch a comprehensive Professional Development Initiative (PDI) to increase the State's and each local education agency's (LEA) capacity to provide effective professional development. The PDI is designed to update the NC education workforce, helping to ensure that each of NC's 100,000 teachers and 2,400 principals has the knowledge and skills required to facilitate student achievement. The initial focus of the PDI will be implementing the professional development associated with the requirements of each of the RttT initiatives on introducing the new standards and assessments in mathematics and reading/English language arts (Section B3), the instructional improvement system addressing these same content areas (Section C3), and the teacher and principal evaluation systems (Section D2). The PDI also will be designed to provide future support for other major state, LEA, and school priorities, as well as the educator professional growth plans developed as part of the North Carolina Educator Evaluation System process described in Section D2.

The State Board will provide oversight and direction to the PDI. The PDI will be led and managed by the NC Department of Public Instruction (NCDPI), which will be responsible for recruiting and coordinating a large network of content developers and professional development leaders throughout NC, using the Statewide System of Support Model described in Section A2. To meet the large scale of required activities, the PDI will have a core staff of a Director, a Professional Development Resources Manager, along with a Regional Coordinator in each of the eight education regions of the State. The principles of coherence, coordination, choice, data-informed decision-making, and evaluation described in the Section D Overview will be applied throughout the work of the PDI.

The PDI will establish a sustainable professional development infrastructure, consisting of the following:

- ***A professional development leadership cadre*** distributed across NC, regional, and LEA levels;
- ***Resources*** (for workshops, professional learning communities, virtual courses, webinars, *etc*.) to support effective professional activities, with the capacity to create additional resources as needed;
- ***Core activities*** that will include creating a cadre of Professional Development Leaders at the regional and LEA levels; supporting the effective use of eLearning to extend professional development opportunities; conducting institutes for principals and LEA leadership teams; and supporting the LEAs in making effective professional development available to all their teachers; and
- ***Evaluations of professional development activities*** that consider the impact on both teaching practices and student achievement, to inform continuous improvement of professional development activities.

The PDI will incorporate research-based principles of effective professional development (*e.g*., Darling-Hammond *et al*., 2009; Garet *et al*., 2001; Penuel *et al*., 2007; Stoll *et al*., 2006), and program design and evaluation will rely on the standards of the National Staff Development Council (2001), the North American Council for Online Learning (2007), and the Southern Regional Education Board (2004) for effective on-site and online professional development.

The Professional Development Leadership Cadre

The core staff will coordinate the selection, training and support of Regional Professional Development Leaders with varied areas of expertise (e.g., content areas, data use, educational technology, teaching diverse groups of students). These Regional Professional Development Leaders will then participate in the Content Working Groups described below (along with other content experts) and provide training and ongoing support to Local Professional Development Leaders from each LEA, who will have primary responsibility for teachers' professional development. The goal of these activities will be to develop regional and local capacity, as well as an extensive set of professional development resources (*e.g.*, workshop curriculum, online modules), to enable the professional development effort to be sustained beyond the RttT grant period.

Other organizations, such as the NC Principals and Assistant Principals Association and LEARN NC at UNC-Chapel Hill, will take leadership roles in PDI tasks for which they bring the required expertise and capacities. In addition, we anticipate multiple contracts will be issued to professional development content developers and providers.

Existing NC Professional Development Resources

NC already has a strong and diverse foundation of state-supported professional development programs, some led by NCDPI, some by university-based groups, and some by non-profits. Examples of these programs include the following:

- NCDPI conducts multiple statewide professional development programs, combining onsite, online, and coaching activities to reach many educators throughout the state. Examples include ongoing professional development programs in the areas of reading, special education, teaching limited English proficiency students, and teaching writing to meet the new NC writing standards (see Appendix 36 for two detailed examples).
- NC Teacher Academy, which was established by the NC General Assembly to provide staff development in the areas of school improvement, core content, instructional pedagogy, and the use of technology;

- National Board for Professional Teaching Standards provides certification, which the State supports for teachers via release time and a 12% salary increase for successful candidates. More than 10% of NC teachers have obtained this certification.
- LEARN NC, a program of the UNC-Chapel Hill School of Education, provides high-quality, cohort-based, online professional development courses and works in partnership with NCDPI, UNC-TV, NC Virtual Public School, the Friday Institute at NC State University, and others to expand the use of effective online professional development.
- Science House, a program of the NC State University College of Engineering, provides hands-on STEM-related professional development programs through six regional centers.

These and some of the other NC programs and potential partners in professional development are described in more detail in Appendix 6.

Professional development in NC is also supported by the many LEAs, colleges and universities, professional associations (*e.g.*, for teachers, teacher assistants, administrators, and school boards), and other organizations that together provide a rich array of growth opportunities for NC educators. The PDI will incorporate and build on these programs to address statewide goals.

Professional Development Initiative Core Activities

1. Conduct ongoing professional development needs assessments.

Professional development priorities at the LEA and school levels will continue to be identified annually through a rigorous, ongoing needs assessment process that will analyze education reform initiatives, localized student demographic and achievement data, data from the Teacher Working Conditions and Student Learning Conditions Surveys, and the outcomes of the Educator Evaluation System. The analyses of these data during the development of the NC RttT proposal already have highlighted several areas of professional development needs, including: preparation of educators to implement the new curriculum standards and assessments (Section B); preparation to make effective use of data from the enhanced longitudinal data system (Sections C1 and C2); support for successful statewide implementation of the Educator Evaluation System (Section D2); and effective use of the new instructional

improvement system (Section C3). Teacher Working Conditions Survey data and student achievement data also point to the need for additional professional development to help teachers work successfully with struggling readers, special needs students, and limited English proficiency students. As demonstrated in Section A3 and in the Section D overview, we recognize that the need for professional development is extensive and varied, and that NC will need to set priorities for the PDI's work each year. Therefore, a substantial proportion of both the State and LEA shares of RttT funding will be allocated to professional development.

2. Identify, evaluate, and as needed, develop professional development resources.

The PDI will coordinate the work of a Professional Development Content Working Group for each priority area. Groups will be comprised of content experts from NCDPI, the LEAs, and colleges and universities, along with instructional designers. Each Content Working Group will identify content needed for the priority area, as well as the types of professional development resources (*e.g.*, on-site institutes, online workshops, materials to support professional learning communities) needed to support that content. The Content Working Groups will define guidelines for the review of existing professional development resources to ensure that these resources are sound in both content and their approach to adult learning, based upon the National Staff Development Council, North American Council for Online Learning, and Southern Regional Education Board standards mentioned above. Once this process is complete, each group will draw up plans for revising existing resources and for developing any required new resources.

A key product of the needs assessment and development work will be the creation of a statewide online repository of professional development offerings that meet the quality review guidelines. This repository will enable teachers and administrators to locate appropriate professional development offerings that address areas of deficiency identified through the Educator Evaluation System process (Section D2), that help teachers address specific needs of groups (*e.g.*, limited English proficiency students) or individuals (*e.g.*, based on diagnostic assessment results), and that prepare them to implement new standards, assessments, and curriculum.

As part of this process, the PDI and RttT evaluation group will create an evaluation system to assess the delivery and outcomes of professional development programs. Only those programs that demonstrate positive impact on participant practices and student

achievement will continue to be included within the PDI initiative. We anticipate leveraging existing capacity in NC for most of this content development, with a core NCDPI team responsible for coordinating, contracting, and monitoring the development. For example, work on the repository will grow out of the existing repository of online professional development managed by *LEARN NC*. The Content Working Groups also will be responsible for designing activities that will prepare Professional Development Leaders (described below) to make effective use of the resources.

3. Recruit, prepare, and support Professional Development Leaders.

NC has many highly capable and experienced educators with the expertise to serve as coaches and mentors to their colleagues, facilitators of professional learning communities, and designers and leaders of professional development activities. The pool of potential Professional Development Leaders includes: more than 14,000 National Board Certified teachers; the many educators who have already received training and have experience in professional development leadership roles through the Teacher Academy, LEARN NC, and other NC programs; college and university faculty; educators identified as highly effective via the NC Educator Evaluation System (see Section D2); and others who have specific expertise in the areas identified through the PDI needs assessment process. Some Professional Development Leaders will have responsibilities across a region while others will have responsibilities primarily in their own LEA.

Potential Professional Development Leaders will be identified through an application and recommendation process. Those accepted may assume a variety of roles to meet the needs of each LEA. For example, they may become leaders of online workshops, coordinators of LEA induction and NC Educator Evaluation System-aligned mentoring programs (see Appendix 37), or facilitators of professional learning communities. Many will focus on specific needs, ranging from training educators on the new curriculum (Section B) and teacher evaluation (Section D2) standards, to specializing in the use of data to inform school improvement planning. Thus, Professional Development Leaders will extend the existing NC model of regional coaches with specific areas of expertise who support professional development at the LEA, school and individual levels. Some will serve as *data coaches*, who support the

effective use of data and technology – including data and technology that will become available with the implementation of NC's RttT initiative (see Sections B and C) – to improve instruction. Others will be *literacy coaches*, *mathematics coaches*, and *instructional technology* coaches, each supporting a region of the state in their area of specialization.

Many of the staff of the NCDPI District and School Transformation division, described further in Section E2, serve as Professional Development Leaders for staff of NC's lowest-achieving schools. The work of these individuals will be coordinated with the work of the PDI Professional Development Leaders, so that those who focus on the lowest-achieving schools can contribute to the overall work of the PDI and apply the expertise and resources of the PDI to support those schools.

4. Support the effective use of technology-enabled eLearning to extend professional development opportunities.

NC is a geographically large state, with many rural districts, a strong technology infrastructure, and a successful record of using online learning approaches in high schools, colleges, and professional education settings. The PDI will make extensive use of e-learning tools to meet the professional development needs of teachers, schools, and districts. Research from a USED-funded eLearning for Educators project (Russell, 2009) and from other studies (Carey *et al.*, 2008; Dede, 2006; Treacy *et al.*, 2002) demonstrates that well-designed and -implemented online professional development programs are not only valued by teachers but also positively impact classroom practices and student learning. The PDI will leverage the technologies made available by the proposed NC PK-12 Education Technology Cloud (described in Section A2) to strengthen professional development offerings in many ways, such as:

- Ensuring that professional development that addresses priority content is available statewide;
- Providing alternatives for educators who prefer the flexibility, pacing, and learning styles possible through online learning;
- Providing opportunities for teachers to interact with mentors and content experts when face-to-face meetings are not possible;
- Engaging educators in virtual learning as students, thereby providing them with first-hand experiences that will help them understand and employ the potential of e-learning with their students; and

- Extending and enhancing on-site workshops, professional learning communities, coaching, mentoring, classroom observations, and other components of local professional development programs through the use of online communications and resources.

The NC eLearning Commission, which is appointed by the Governor and chaired by Lt. Governor Walter Dalton, will join with the State Board of Education to oversee the development of online professional resources to further the use of technology-enhanced and technology-enabled forms of professional development. The eLearning component of the PDI will make online learning tools, such as learning management systems, wikis, virtual conferencing systems, *etc*., readily available to all LEAs thorough the K-12 Education Technology Cloud. It will also provide training and support to state and local professional development leaders in the effective uses of technology. Finally, it will coordinate with the Content Working Groups described above to ensure that priority professional development content is made available to all teachers online.

LEARN NC, a statewide online professional development provider based an UNC-Chapel Hill, will play a central role in the eLearning component of the PDI, building upon the state's existing eLearning for Educators partnership, which includes UNC-TV (public television), NCDPI, NC Virtual Public School, and the Friday Institute at NC State University. NC is a member of the multi-state eLearning for Educators consortium that is led by Alabama Public TV and Education Development Center, Inc. and funded by a USED Ready to Teach grant. The PDI will make extensive use of the resources available through this consortium, including the online professional development workshops in teaching reading at the elementary level and algebra readiness at the middle school level that have been shown to be effective in large, randomized-control studies (Meeks and Russell, 2010; Master *et al*., in press). Since online resources can reach teachers throughout the state and can be cost-effective once the initial development work is completed, NC will allocate significant RttT resources to this component of the PDI.

5. Conduct planning institutes for LEA Leadership Teams.

Sustained professional development programs need to be implemented and monitored locally, since professional development is most successful when it is embedded in a teacher's own practice, linked to work with students, ongoing, and supported by a professional

community (National Staff Development Council, 2001). Statewide resources and online professional development activities will need to be customized for local needs. To support the implementation of effective local and regional professional development programs, the PDI will hold planning institutes for leadership teams from individual LEAs and from cross-district collaborative teams. These three-day face-to-face institutes will take the leadership teams through a process for planning their local professional development programs by enabling them to:

- Learn about new state initiatives that their local professional development programs will need to address;
- Analyze local needs data and improvement plans to inform program design;
- Learn about effective practices for coaching, mentoring, induction, PLCs, and other potential program elements;
- Learn about online professional development opportunities and on-site opportunities available locally and statewide;
- Explore strategies for incentivizing educators to take part in professional development, including release time, common planning time, and stipends;
- Develop action plans for their programs, review input about their plans, and revise as appropriate; and
- Prepare to participate in the evaluation of the PDI.

Institutes to be held during the summers of 2011 and 2012 in each of NC's eight education regions and coordinated via the statewide System of Support (described in Section A2), will result in completion and online submission of LEA Professional Development Action Plans. The institutes will accommodate up to five Leaders per district and 20 teams per institute, thereby ensuring that Leaders and teams from all 115 NC LEAs will be able to participate before the 2012-13 school year.

6. Conduct* Leadership in Practice *Principal Institutes.

While the UNC principal preparation programs have been updated (see Section D4) and the new regional leadership academies will prepare principals to transform low-achieving schools (Section D3), we recognize that most students will continue to attend schools led by existing principals. Therefore, timely, high-quality professional development for existing principals is essential. The proposed Leadership in Practice institutes will be organized by the North Carolina Association of School Administrators and the North Carolina

Principals and Assistant Principals' Association, working in collaboration with NCDPI, LEA, University, and non-profit partners. These institutes will help the participants internalize the new principal evaluation standards and translate those standards into practice. They will use a cohort-based, experiential approach, delivered using a blended approach of six whole-group face-to-face sessions, online activities with online cohort collaboration and coaching, and small group sharing/feedback sessions, over a one-year period. Using a problem-based approach with real-world activities, participants will internalize and apply the performance evaluation standards in an integrated manner as they are coached through the planning, implementation, and monitoring/adjusting phases of a proven school improvement and capacity-building process. As participants are led and coached through capacity-building activities for their own schools, they simultaneously will build their personal capacities as school leaders to: lead and manage change; use data to identify needs and establish priorities; maximize teaching and learning; create a student-focused culture; and connect with the external community. These institutes also will engage participants in planning and implementing school-based professional development that is aligned with the LEA Professional Development Action Plans.

In order to be prepared to implement these institutes quickly if RttT or other funding is obtained, the development of the curriculum for this model is well underway, as is the selection process for the first "train-the trainer" cohort, made up of approximately 40 practicing school leaders. These future facilitators will participate in a preparation program that mirrors the blended structure of the model. Once prepared, these future facilitators, 4 to 6 from each of the eight regions of the state, will facilitate the institutes for regional cohorts of practicing school leaders across the state. Additionally, these institute leaders will provide a potential pool from which to select mentors and/or coaches for aspiring principals in the leadership academies.

We plan to hold eight institutes, one in each region of the state, each year, with each institute having about 50 participants, thereby reaching 400 principals per year. Priority will be given to principals of high-need schools and new principals.

7. Work with LEAs to ensure that effective and appropriate professional development is available to all teachers.

As described above, the PDI will provide many resources, prepare Teacher Leaders and Coaches, provide institutes for principals and for district professional development teams, support the extensive use of online professional development approaches, and coordinate

with LEAs on using these resources in their local professional development plans. LEA professional development leaders will be tasked with ensuring that a variety of delivery options are available to LEA teachers to meet different needs and to provide equitable access to educators throughout NC. Delivery options for each priority area will be determined through the localized needs assessment and planning processes, but we anticipate that the variety of options to be employed will include:

- Intensive, on-site summer institutes;
- On-site workshops scheduled during the school year;
- Online workshops that utilize: 1) cohort-based, facilitated, asynchronous approaches, or 2) self-paced, individualized approaches;
- Webinar series that address topics more focused than those covered in workshops and institutes;
- Professional learning communities with trained facilitators and resources to structure productive activities; and
- Peer coaching and mentoring, using both on-site and online observations and interactions.

Local programs will, of course, vary, depending upon local resources, needs, and perspectives. We anticipate that LEAs will use some of the their RttT funding to support their local professional development program, making use of the resources, training, and support provided with the state-level resources.

D.5.ii. Conducting Evaluations of Professional Development Activities

Embedded in the PDI is an ongoing assessment of the need for current and new professional development offerings. In addition, the NC RttT evaluation team will address a series of questions – including questions about impact of professional development on teacher behaviors and student outcomes – as part of the overall RttT evaluation efforts.

The RttT evaluation group (described in Section A2) will conduct ongoing evaluations of the PDI content and activities, which will include analyses of the impact of professional development on teacher practices and student achievement. The results will be made available to the PDI, LEAs, and schools that are creating professional development plans and will be used to inform quality control, updating, and continuous improvement of the professional development programs. Key questions to be addressed in the evaluation include:

- Does PDI participation result in changes in teacher behavior and increases in student achievement, including high-needs students?
- Do all educators have equitable access to the professional development they need?
- Is the professional development aligned with identified needs, and is it reaching those teachers and principals who most need it?
- Is the content of professional development activities of high quality, consistent with the research-based principles of effective professional development, and designed to meet the specific goals of the activities, all as determined by expert reviewers?
- Does participation in PDI lead to teacher progress on the NC Educator Evaluation System ratings?
- Does participation in PDI lead to increases in educator ratings of the professional development available to them, as well as in overall job satisfaction and retention rates, as measured by the TWC survey and teacher retention data?
- Does participation in PDI result in changes in classroom practices by teachers and leadership/management practices by principals?
- Does the PDI take sufficient advantage of technology to increase both effectiveness and efficiency?
- To what degree are schools supporting ongoing, job-embedded professional development (*e.g.*, via professional learning communities, peer coaching, or common planning times)?

Additional specific questions, data sources, and timelines governing the evaluation of these activities are included in Appendix 7.

Sustaining the PDI

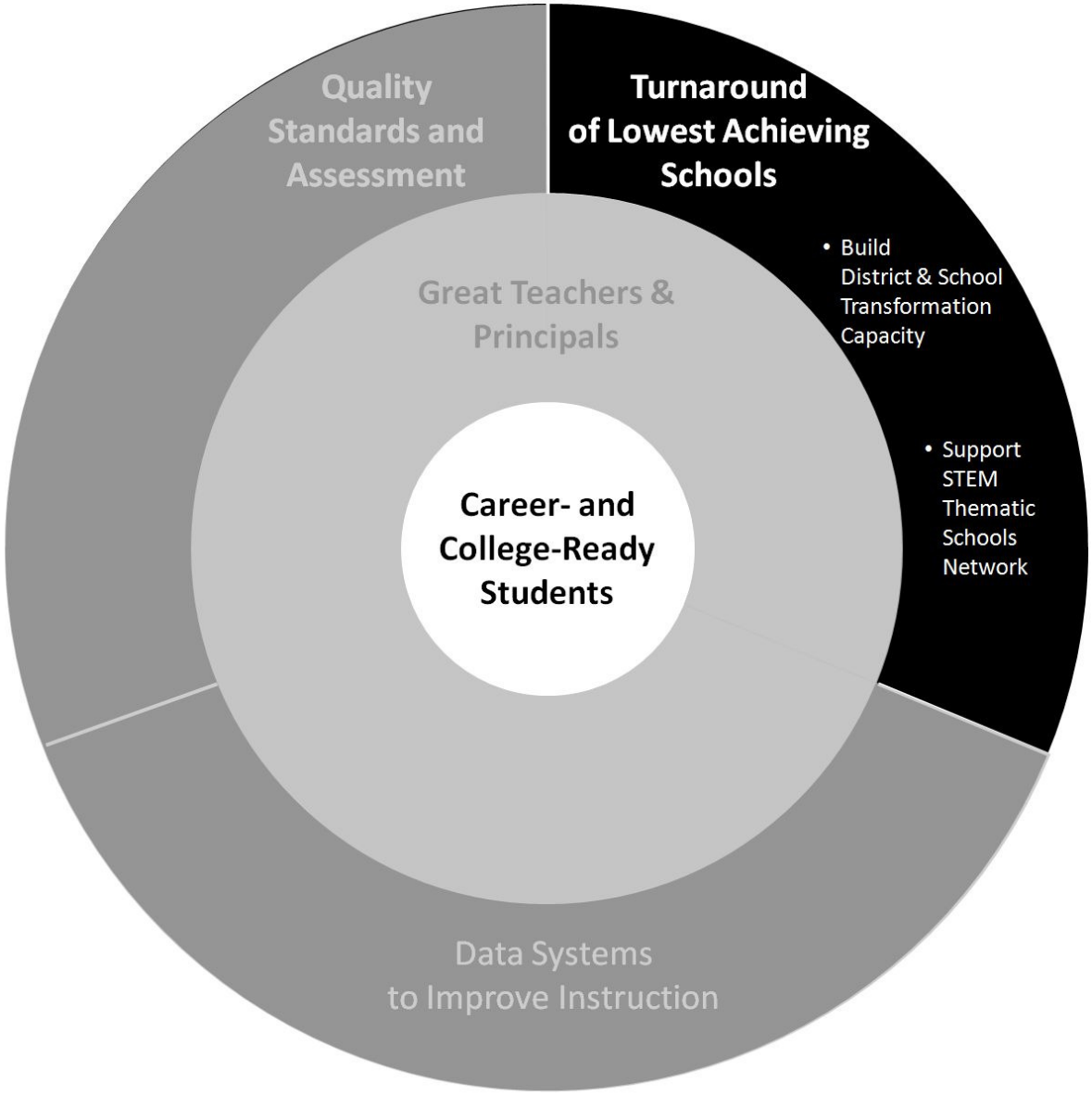
The PDI is designed to be sustained so that it can continue to impact professional development delivery beyond the RttT funding period. RttT funding will be used to develop the infrastructure, processes, resources, resource development capacity, and cadre of professional development leaders that will continue to serve NC well. RttT funding will support the development of online professional development resources, which can then be used repeatedly at limited cost. The evaluation will provide data to inform decisions about which types of professional development are most effective for improving teaching practices and student achievement. Over the RttT period, NC will work on reallocating professional development funding to ensure that it supports ongoing professional development activities that have proven effective, using NC and local resources described in Section A.2.iv and the sustainability strategies described in Section A.2.v.

Implementation Schedule

Table 25: PDI Implementation Schedule

YEAR	NC STATUS
October 1, 2010 – September 30, 2011	• Begin ongoing needs assessment for PD priorities • Identify and recruit Professional Development Content Working Group • Identify, evaluate, and, as needed, develop new PD content and resources. • Create statewide online repository of PD offerings including evaluation system to assess delivery and outcomes of programs. • Recruit and prepare Professional Development Leaders. • Leverage technologies made available by Education Cloud to extend PD eLearning opportunities. • Conduct planning institutes for LEA Leadership Teams (Summer). • Conduct Leadership in Practice Principal Institutes.
October 1, 2011 – September 30, 2012	• Conduct first-year evaluation with analysis of the impact of PD on participant practices and student achievement. • Update statewide PD repository to include those programs that demonstrate a positive impact. • Review, revise, and continue to develop PD content and resources based on needs assessments. • Support Professional Development Leaders. • Continue to leverage technologies made available by Education Cloud to extend PD eLearning opportunities. • Conduct planning institutes for LEA Leadership Teams (Summer). • Conduct Leadership in Practice Principal Institutes. • Implement recommendations from first-year evaluation.
October 1, 2012 – September 30, 2013	• Conduct second-year evaluation with analysis of the impact of PD on participant practices and student achievement. • Update statewide PD repository to include those programs that demonstrate a positive impact. • Review, revise, and continue to develop PD content and resources based on needs assessments. • Support Professional Development Leaders. • Conduct Leadership in Practice Principal Institutes. • Implement recommendations from second-year evaluation.
October 1, 2013 – September 30, 2014	• Conduct third-year evaluation with analysis of the impact of PD on participant practices and student achievement. • Update statewide PD repository to include those programs that demonstrate a positive impact. • Review, revise, and continue to develop PD content and resources based on needs assessments. • Support Professional Development Leaders. • Conduct Leadership in Practice Principal Institutes. • Implement recommendations from third-year evaluation.

(E) Turning Around the Lowest-Achieving Schools ***(50 total points)***



State Reform Conditions Criteria

(E)(1) Intervening in the lowest-achieving schools and LEAs*(10 points)*

The extent to which the State has the legal, statutory, or regulatory authority to intervene directly in the State's persistently lowest-achieving schools (as defined in this notice) and in LEAs that are in improvement or corrective action status.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (E1):

- A description of the State's applicable laws, statutes, regulations, or other relevant legal documents.

Recommended maximum response length: One page

E.1. Intervening in the lowest-achieving schools and LEAs

As a result of the State Supreme Court's *Leandro* decision and subsequent Superior Court rulings, NC has legal, statutory, and regulatory authority to intervene directly in the lowest-achieving schools and in LEAs that are in improvement or corrective action status.

The NC State Board of Education has both legal authority and legal responsibility to intervene directly in NC's lowest-achieving schools and in LEAs that are in improvement or corrective action status. The authority and responsibility are defined in the North Carolina Constitution, legislation, and the North Carolina Supreme Court's decisions in *Leandro v. State, 346 N.C. 336, 348, 488 S.E.2d 249, 255* (1997) and *Hoke Cty. Bd. of Educ. v. State, 358 N.C. 605, 599 S.E.2d 365* (2004) (*Leandro*), and related superior court actions. A summary of some of the key points of these laws and decisions is provided below.

NC statutes 115C-105.37 through 115C-105.41, originally passed in 1995 and revised in 2001, provide the legal basis for State intervention in the lowest-achieving schools and districts. These statutes require the State Board to design and implement a procedure to identify schools that fall below a criterion of student achievement and provide assistance and intervention strategies designed to improve student achievement. The statutes require an evaluation of the principal in each of the identified schools and specify that the principal must have a remediation plan or be removed if he or she had been in that position for more than two years before the school was identified as low-performing. The statutes also provide the State Board with the authority to assign a team to do the following:

1. Review and investigate all facets of school operations and assist in developing recommendations for improving student performance;
2. Collaborate with school staff, central offices, and local boards of education in the design, implementation, and monitoring of a plan to alleviate problems and improve student performance;
3. Make recommendations as the school develops and implements this plan; and
4. Report to the local board of education, the community, and the State Board on the school's progress. Furthermore, if the school and local board fail to take appropriate steps to improve student performance, the statutes specify that:

The State Board shall assume all powers and duties previously conferred upon that local board and that school and shall have general control and supervision of all matters pertaining to that school until student performance at the school meets or exceeds the standards set for the school. These actions can include the appointment of an interim superintendent selected by the State Board.

The State Board's constitutional authority and responsibility to intervene in the lowest-achieving schools and LEAs was strengthened by the North Carolina Supreme Court in the *Leandro* decisions. In these decisions, the North Carolina Supreme Court held that:

1. The State has the constitutional responsibility to provide every student with the equal opportunity to obtain a sound basic education in the North Carolina public schools;
2. Student achievement as measured on standardized tests is a significant indicator of whether the opportunity to obtain a sound basic education exists within a school; and
3. It is the State's responsibility to see that:
    a. Every classroom is staffed with a competent, certified, well-trained teacher;
    b. Every school is led by a well-trained, competent principal; and
    c. Every school is provided, in the most cost-effective manner, the resources necessary to support the effective instructional program within that school so that all children, including at-risk children, have equal opportunity to obtain a sound basic education.

In March 2006, the superior court overseeing implementation of the *Leandro* decisions informed the State Board that the court would not allow a high school that had a performance composite of 55% or less for five years to remain open beyond the 2005-06 school year unless:

1. The management team was replaced by a team approved by the State Board;
2. The school adopted an instructional redesign for a 21st Century High School approved by the State Board; and

3. The staff was committed to implementing the redesigned instructional program.

In addition, the State Board has adopted policies that authorize it to intervene in districts that fail to meet adequate yearly progress under NCLB (GCS-C-025).

Since 2004, the State Board has exercised its legal authority to intervene in over 700 public schools and more than 40 LEAs to improve student performance. Of particular note, in May 2009, the State Board sought and the Court approved a Consent Order, which authorizes the State Board to oversee decisions in personnel, finance, and curriculum and instruction in Halifax County Schools.

North Carolina's response to E2 below contains a more complete history of State Board interventions to improve student achievement in the lowest-performing North Carolina public schools and LEAs.

Reform Plan Criteria

(E)(2) Turning around the lowest-achieving schools *(40 points)*

The extent to which the State has a high-quality plan and ambitious yet achievable annual targets to—

(i) Identify the persistently lowest-achieving schools (as defined in this notice) and, at its discretion, any non-Title I eligible secondary schools that would be considered persistently lowest-achieving schools (as defined in this notice) if they were eligible to receive Title I funds; and *(5 points)*

(ii) Support its LEAs in turning around these schools by implementing one of the four school intervention models (as described in Appendix C): turnaround model, restart model, school closure, or transformation model (provided that an LEA with more than nine persistently lowest-achieving schools may not use the transformation model for more than 50 percent of its schools). *(35 points)*

The State shall provide its detailed plan for this criterion in the text box below. The plan should include, at a minimum, the goals, activities, timelines, and responsible parties (see Reform Plan Criteria elements in Application Instructions or Section XII, Application Requirements (e), for further detail). In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (E2) (please fill in table below):

- The State's historic performance on school turnaround, as evidenced by the total number of persistently lowest-achieving schools (as defined in this notice) that States or LEAs attempted to turn around in the last five years, the approach used, and the results and lessons learned to date.

Recommended maximum response length: Eight pages

E.2.i. Identifying the Persistently Lowest-Achieving Schools

Since 2006, the Department of Public Instruction's District and School Transformation division has identified and intervened in the state's lowest-achieving schools, regardless of Title I status.

In NC, the *performance composite score* for a school is the proportion of students' scores on state end-of-course and end-of-grade assessments that are at or above the proficient level (see Section D2). From 2006 through 2009, all high schools with a performance composite of less than 60% were classified as being low-achieving, were placed in turnaround status, and received NC intervention and monitoring, as described below. The performance composite is a more stringent measure of assessing school success than simply using math and reading measures alone. For example, a high school performance composite includes a student's performance in multiple subjects, including English, Algebra I and II, Biology, US History, and Civics/Economics. Therefore, the performance composite provides a measure of the overall ability of all students in a school to apply reading and math skills across subject areas.

For the NC RttT plan and related work moving forward, NC has revised the criteria for intervening in the lowest-achieving schools to ensure that the lowest-achieving 5% of all schools are eligible. Eligibility criteria are as follows:

- Any school in NC with a performance composite under 50%;
- Any high school in NC with a graduation rate below 60% in the prior year and one of two previous years; or
- The lowest 5% of Title I schools currently in improvement, corrective action, or restructuring status (as defined by the School Improvement Grant criteria).

In 2008-09, 132 schools, with approximately 69,000 students, were classified as lowest-achieving. These 64 elementary, 22 middle, and 46 high schools constitute the bottom 5% of the conventional public schools in NC. The students in these schools are overwhelmingly minority and low-income. Table 26 compares core demographic data for the bottom 5% with the top 5%, and Appendix 38 provides the full list of these lowest-achieving schools in NC and data about each one.

Table 26: Core Demographic Data Comparisons

	% MINORITY STUDENTS	% ECONOMICALLY DISADVANTAGED STUDENTS	% STUDENTS WITH DISABILITIES	% LIMITED ENGLISH PROFICIENT STUDENTS
Bottom 5%	85%	89%	15%	5%
Top 5%	25%	21%	9%	3%

(*Note*: School Improvement Grant (SIG)-eligible schools not directly served through the District and School Transformation process (*i.e.*, alternative, special education, charter, and un-graded schools) are supported by the NCDPI Federal Program Monitoring Division.

Our analysis of patterns of lowest-achieving schools also has led us to define criteria for *lowest-achieving **districts***. These districts have a district-wide performance composite of less than 60% and limited support capacity (as measured by eligibility for Low-Wealth District and Disadvantaged Student Supplemental funding; see Section F1), primarily due to their location in low-wealth communities and the fact that they serve a large proportion of students from low-income families. Sixteen of NC's 115 LEAs fall into this category, 15 of which are in rural areas. The 16 lowest-achieving districts contain 48 of the 132 lowest-achieving schools. Eight of these lowest-achieving districts are clustered in NC's rural northeast region, which has struggled economically with the decline of the region's agrarian and manufacturing industries. Appendix 39 provides a list of these districts and baseline data about each one. Our RttT plan identifies these districts as "Transformation Districts." We will utilize our existing district transformation plan (already in place in five LEAs; see below) to address the needs of these districts not only by reforming the cluster of low-achieving schools within the district but also by supporting the development of the district's capacity to sustain high student achievement across all of the district's schools.

E.2.ii Turning Around the Persistently Lowest-Achieving Schools in NC

NCDPI's District and School Transformation division, along with other change partners, has been engaged in turnaround efforts that closely resemble the four RttT models. As part of the State's RttT plan, District and School Transformation will transition to implementing the four school intervention models outlined by the USED, limiting the use of the transformation model to no more than 50% of schools in LEAs with more than 9 schools identified for intervention. The NC General Assembly recently passed a *Reform of Low Performing Schools Act* (see Appendix 40) that authorizes LEAs to apply any of the four models in their plans to turnaround lowest-achieving schools.

Background

In 2005, in response to judicial and executive mandates, NC began a high school turnaround initiative to restructure and improve 44 low-achieving high schools. In 2006, additional high schools were added to this effort, to bring the total number engaged in a turnaround process to 66. Between 2005 and 2007, turnaround efforts focused on high schools because performance historically has been lowest at this level, but also because resources were not available at the time to include elementary or middle schools in the effort. Intensive work with a selected set of lowest-achieving middle schools that are feeder schools to lowest-achieving high schools began in 2007-08.

In 2007, NCDPI worked with the Boston Consulting Group, supported by the Bill & Melinda Gates Foundation, to refine and extend the turnaround support process, which led to the creation of the District and School Transformation division within NCDPI. The Transformation division currently has a team of 70 full-time, primarily field-based staff who are proven school instructional leaders. Team members have been engaged directly at district and school levels, and provide NC with a strong nucleus of individuals who are well-prepared to lead the scale-up and expansion of NC's ongoing school reform effort.

As described in the preceding section, many of the lowest-achieving schools in NC are in economically distressed rural areas. In 2008, the Transformation division began partnerships with five of the lowest-achieving rural districts to develop LEA capacity to increase achievement district-wide. These partnerships include work in each district's elementary, middle, and high schools, as well as the

district's central office (schools in these districts are listed in Appendix 41). The comprehensive level of engagement has provided us with additional information about the specific needs of economically distressed rural districts.

Previous Approaches and Results

Since 2005, NC has employed multiple approaches to turning around the lowest-achieving schools: High School Turnaround, *NC Restart*, and *NC New Schools* models, all of which have been applied at the high school level; Elementary and Middle School Turnaround; District Turnaround; and Direct Intervention under Consent Order. Each is detailed below.

1. High Schools

A. NC High School Turnaround. Appendix 42 provides a list of the 66 lowest-achieving high schools that the Transformation division has assisted between 2006 and 2009, along with student achievement performance composites, graduation rates, and changes in both measures during the three-year intervention period.

In the turnaround approach that the Transformation division has applied previously, once a school is identified as low-performing under State statute, State personnel initiate a *comprehensive needs assessment* process. The resulting diagnosis is used to inform the process of developing a turnaround plans targeted to local needs and built upon local strengths.

The next component of the Transformation division process is to work with school and district leaders to develop and implement a school-specific turnaround plan. Each plan is developed in conjunction with one or more change partners, as outlined in Appendix 43. In 52 of the 66 high schools, the primary change partner was the Transformation division itself. In these cases, a transformation model was applied, with a focus on changing the professional practices of school leaders and teachers in ways that lead to changes in many aspects of the culture of the school, such as the following:

- Setting high expectations for all students,
- Focusing all efforts on improving student learning,
- Using data to inform instructional and managerial decisions,

- Furthering collaborations among teachers, and
- Increasing parental and community engagement in the school.

This process centers on professional development and coaching, with instructional coaches for teachers, school transformation coaches for principals, and, in the lowest-achieving districts, district transformation coaches for superintendents and central office instructional staff. A major emphasis is placed on providing high-quality, job-embedded professional development. This model may involve changes in school leadership and multiple teacher replacements, and it can involve incentive strategies, increased learning time, and other strategies that are part of turnaround or transformation models.

In 8 of the 52 *Turnaround* high schools, the Transformation division collaborated with the NC New Schools Project to also implement the *NC Restart* model. The result of this partnership was the development of independent STEM-centered "new schools" – small, independent, tightly-focused learning communities – which were created by carving out a school of up to 400 students from each parent school. The parent school, in addition to spinning off a "new school," implemented the transformation model to change the instructional opportunities for the remaining students. More details about the *NC Restart* model are provided below.

Of the 14 other high schools, ten chose to work with both the Transformation division and other change partners. These partners have included: the McREL Success in Sight program; America's Choice; Talent Development, LLC; Creating Great Classrooms; Solution Tree; Focused Leadership Solutions; and the Southern Regional Education Board's High Schools that Work. Three high schools chose to work exclusively with New Schools Project, with two closing and then implementing the *NC Restart* model and one closing and converting into multiple "new schools." The final high school chose to work with the Coalition of Essential Schools and was closed and converted into multiple "new schools."

The final component of the Transformation division approach has been to monitor progress, both to determine the effectiveness of the supports on improving student achievement and to determine whether NC needs to assume increased authority and require more

extensive interventions. This monitoring takes place whether the school works directly with the Transformation division or another organization as the change partner.

The Transformation division support process, in collaboration with district supports, school efforts, and the other change partners, already has shown significant success in only three years. Based on the 2008-09 statewide assessments, 30 of the 66 high schools involved (45%) have met the target goal of increasing their student achievement performance composites to above 60% and are therefore exiting Transformation status. Of the remaining 36 high schools, 22 showed a performance composite increase of at least 5% (individual school data are provided in Appendix 42). Therefore, we have evidence that the approach is a viable one for a substantial number of the lowest-achieving schools in NC. The Transformation division will continue to work with the 36 high schools that have not reached the 60% criterion. The turnaround plan for the 12 schools making little or no progress has been redesigned with the direct involvement of the State Superintendent, the director of the Transformation division, and the superintendent of the LEA in which each school is located. The supports have been intensified in each of these schools.

B. The NC High School Restart and NC New School Models. In addition to turning around or replacing schools, NC also has pursued the strategy of creating new high schools specifically designed to better prepare students, especially high-need students, to be career- and college-ready. While independent from the Transformation division, this effort has functioned in close partnership and collaboration with the Transformation division efforts. Both the *NC Restart* model and the *NC New School* models originated in NC Senate Bill 656, The 2003 Innovative Education Initiatives Act (Appendix 44). This bill was passed to establish cooperative efforts between secondary schools and institutions of higher education in the establishment of new schools to improve pre-college student achievement. It also called for the establishment of "redesigned" (*i.e.*, *Restart*) schools and the creation of a virtual high school (as described in Section D3). This Act specifically called for targeting high school students who are at risk of dropping out, along with those who would benefit from accelerated academic instruction. The Act was framed by its legislative advocates as establishing *charter-like schools without charters* (Lt. Gov. Walter Dalton, personal comm.) and provided those schools with most of the flexibility

typically associated with charter schools. Governor Perdue, then President of the NC Senate, was one of the advocates and signatories of this bill.

Also in 2003, the NC New Schools Project, a non-profit organization, was created by the Office of the Governor and the NC Education Cabinet, with support from the Bill & Melinda Gates Foundation, to develop models for these redesigned and new high schools and to support their successful implementation. The result since then has been the development of 105 small, innovative high schools in 64 (of the 115) LEAs, which enrolled more than 21,000 students during the 2009-10 school year. These schools are located primarily in NC's economically depressed areas and serve high percentages of minority, low-income, and "first-generation college-going" populations. Twenty-one of these schools are located in the 16 districts classified as lowest-achieving.

The *NC Restart* model engages an LEA in the process of converting part or all of a traditional high school into one or more smaller, academically nimble schools that can serve students better, with guidance from the NCNSP. In the process, school conditions are redesigned to permit more effective teaching and learning. Thirty-six of the innovative high schools developed since 2003 are *NC Restart* high schools. Ten of these were STEM-focused schools that were opened in 2007-08 as *Restart* schools for low-performing schools (as discussed above) as part of the response to Judge Manning's 2006 order that persistently low-performing high schools be redesigned with new leadership, staff, and instructional programs.

The *NC New School* model involves creating new schools that extend the schooling options available to students. The focus of this model in NC has been in the development of Early College High Schools, which are situated on college campuses. One innovative component of these schools is that the students can take courses at the affiliated college and the curriculum is designed so that, over five years, students can earn their high school degree and either an associate's degree or two years of college credit, all without paying tuition, since they are enrolled in public high schools. Seventy Early College High Schools have been created in NC since 2004, with two more scheduled to open in 2011 – far more than in any other state and about one-third the total of all such schools in the US. Partnering with the community college system has been a significant strategy in increasing student achievement in rural areas.

The *NC Restart* schools and the *NC New Schools* created through partnerships between NCNSP, LEAs, and (in the case of new schools) local colleges share a number of core strategies. Both types of schools build upon a set of design principles that include: 1) a common set of high standards to ensure that all students are prepared for college and work; 2) powerful teaching and learning, providing rigorous instruction to ensure the development of critical thinking, application, and problem-solving skills; 3) personalization, ensuring that adults in the school know students well and leverage this knowledge to improve student learning; 4) redefined professionalism, with a shared vision, a shared responsibility for the success of every student, and collaborative, creative, and learning roles for all staff; and 5) purposeful design, with an organization of time and space and the allocation of resources that are focused on creating conditions to ensure the successful implementation of the other four principles. While the school designs are such that all students are served well and at high levels of rigor, the designs focus particularly on those students who traditionally have been underserved by mainstream public schools: children of poverty, children of color, English language learners, and first-generation college-goers.

Highly qualified school leaders and faculty were recruited for these innovative schools, and hiring packages and bonus incentives were established in some districts for increased student performance. All staff received direct support through professional development and coaching in the effective use of research-based professional practices and change strategies. Some of these schools have a thematic focus in areas that are vital to the future of NC's economy, including science, technology, engineering, and mathematics. Some have a strong technology component, with every student and teacher utilizing a laptop computer.

The strategies for the *NC Restart* and *New School* models that correspond with strategies of the RttT turnaround models include the following:

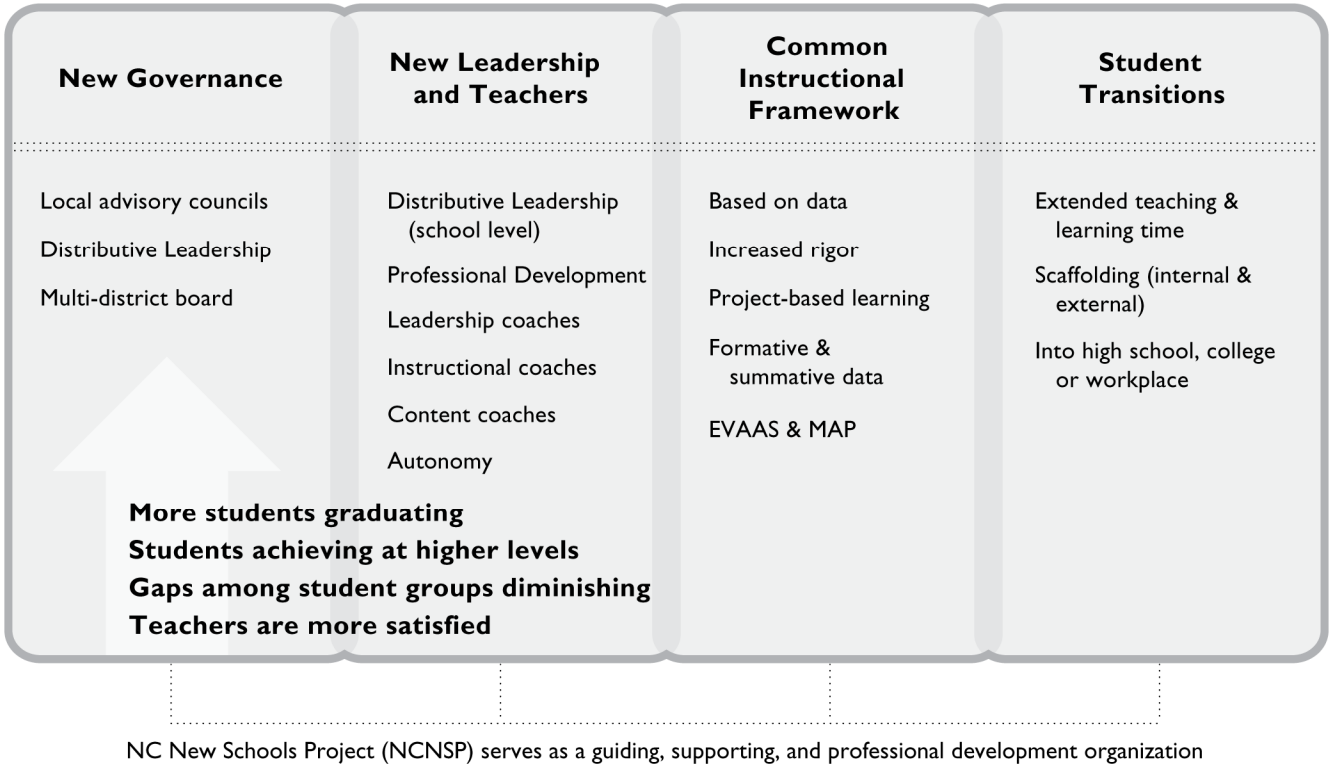


Figure 10: NC Restart and New Schools Model Strategies and the RttT Turning Around Lowest-Achieving Schools Model

See Appendix 45 for a fuller description of the tools from NCNSP's Integrated System of School Support Services (IS4). These innovative schools, the first of which was opened in 2005, already are delivering promising results:

- *More students are graduating*. Of the 18 innovative high schools in which a full, four-year cohort graduated in 2009, seven had graduation rates above 95% and 12 had graduation rates above 80%, compared to NC's overall rate of 72%;
- *More students are on track for college*. To be on-track for college, students need to have successfully completed Algebra I and English I by the end of 9th grade. An experimental study of Early College High Schools funded by the Institute for Education

Sciences found that 81% of ECHS students were on track in math, compared to 67% of students in the control group (Edmunds *et al*., 2010);

- *Students are achieving at higher levels*. Measured by NC's accountability system, two-thirds of the innovative high schools in 2008-09 outperformed their comparison schools, and one-third had overall passing rates greater than 80% on NC end-of-course exams, compared to only about one-fifth of all high schools statewide;
- *Gaps among student groups are diminishing*. The experimental study cited above also found that, by the end of 9th grade, 75.5% of underrepresented minority students and 74.8% of white students enrolled in Early Colleges had successfully completed Algebra I, much higher than the 54.9% of underrepresented minority students and 61.2% of white students in the control group. Results were similar for English I;
- *Suspensions have been cut by almost 90%, and unexcused absences have been halved*. By the end of 9th grade, 2.7% of Early College students had been suspended at least once, compared to 20.6% in the control group, and Early College students had an average of 3.85 unexcused absences compared to 6.41 unexcused absences in the control group; and
- *Students and teachers are more satisfied.* In 2007-08, 49% of teachers in NC's innovative high schools strongly agreed that their schools are "good places to teach and learn," compared to 34% of teachers in the traditional high schools to which they were compared. Similarly, students in Early Colleges reported significantly higher levels of academic engagement and confidence in their math abilities than do non-Early College students, and Early College students reported higher academic expectations, more rigorous and relevant instruction, more support, and better relationships with their teachers than do students in traditional schools.

While the *NC Restart* and the *NC New School* models described have been central to the NC initiatives during the past five years, NC also supports the development of charter schools, as described in Section F2.

2. NC Elementary and Middle School Turnaround

In the 2007-08 school year, thirty-seven middle schools entered into NC Middle School Turnaround. These middle schools had a performance composite below 60% for two consecutive years and were a feeder school for one of the 44 originally identified high

schools. Each school was required to complete a turnaround plan. These schools received professional development through the UNC Center for School Leadership Development. They also received leadership and teacher coaching from the Transformation division. In year two of the three-year intervention, four of the middle schools already have exceeded a 60% performance composite, and thirty-one additional schools demonstrated growth (Appendix 46).

In the 2007-08 school year, twenty elementary schools entered into NC Elementary School Turnaround. These schools either were identified as "Low-Performing" under North Carolina's ABCs model (see Section D2) or were in their third year of sanctions under NCLB. Each school was required to complete a Framework for Action plan. These schools received professional development through the UNC Center for School Leadership Development. They also received leadership and teacher coaching from the Transformation division. After one year of intervention, only two of those schools re-appeared as "Low-Performing" the following year. Lack of resources resulted in this intervention being discontinued in 2008-09. In 2009-10, new resources were appropriated by the NC General Assembly. A portion of these resources are being used to provide limited instructional coaching support for 20 of our lowest-achieving elementary schools in 2010.

3. NC District Turnaround

Under the District Transformation model, DPI utilizes the LEA-level measures of district capacity and performance noted in Section E.2.i above to identify struggling districts. Through a voluntary partnership with the local school board and superintendent, the Transformation division provides support to an entire district and all of the district schools to assist the district in developing its capacity to better serve students. The Transformation division provides the district with a district transformation coach who works with the superintendent and central office, and, based on a comprehensive needs assessment, an array of school transformation coaches who support the district schools. In addition, instructional coaches serve elementary, middle, and high school teachers, providing both content-specific and effective instructional practice professional development for groups of teachers or for individual classrooms. Only one year of data are available for the five districts in the District Transformation model, but these data already

demonstrate that the model is helping to increase student achievement across the entire district, as student achievement is trending upward in almost all of the schools in these five districts. (Figure 11; also see Appendix 41).

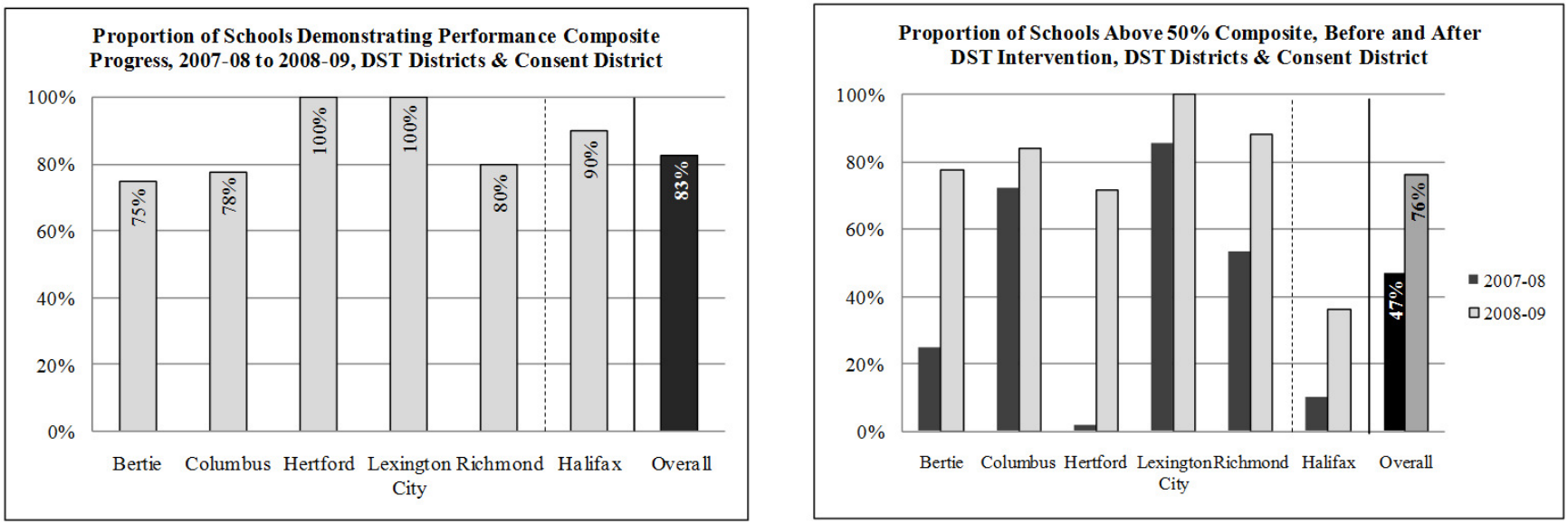


Figure 11: Progress in District Turnaround Schools and Consent District Schools, 2007-08 – 2008-09

4. NC Consent Order

In the spring of 2009, an additional model of intensive intervention, the Consent Order, was developed. Under direction of the State Supreme Court (as part of the *Leandro* decision) the state is constitutionally responsible for ensuring a sound, basic education for every student. When a district is identified for significant underperformance and there is a lack of evidence that district leadership is making the necessary changes, the Court has directed the State Board of Education to assume oversight. The Transformation division is in its first year of intervention in one district (included in Figure 11; also see Appendix 41 for data from this district) through a court-monitored Consent Order.

Lessons Learned

Half of the low-performing schools in North Carolina are urban and half are rural. Through the work of the Transformation division, we have learned that some turnaround strategies employed in urban districts cannot be applied directly to NC rural districts. For example, urban districts may have strong central staff to support turnaround efforts, while rural districts may lack the resources needed to develop such a staff. In an urban district, incentives can encourage highly effective teachers and principals to transfer within the district from high-achieving schools to the lowest-achieving ones. In rural low-achieving districts, there are typically insufficient numbers of high-achieving schools and highly effective staff to allow this approach to work. Recruiting from outside the district is required, but it is often difficult to attract people to relocate to economically-distressed rural areas. Therefore, it may not be feasible to meet the staff change requirements of the turnaround model in many rural districts. As another example, urban areas often have the capacity to employ a *school closure model*, in which students are enrolled in other schools in the LEA that are higher-achieving. In a distressed rural area, it is less likely that a higher-achieving school is available within the same LEA, or even within a reasonable distance across LEAs.

In addition, in districts with limited resources and clusters of low-performing schools, we have learned that it is insufficient to intervene in individual schools, as the district itself lacks the capacity to cultivate or sustain substantial school improvement. By employing a whole district transformation model and supporting the development of both district and school capacity, we can lift the student achievement across the district, strengthen achievement across school feeder patterns, and sustain this change.

Finally, specific supports are needed to provide rural districts with an adequate supply of high-quality principals and superintendents and to develop and sustain high-quality teachers. As part of our overall RttT initiative, we will develop innovative, field-based leadership academies that are placed strategically and recruit from specific geographic areas (see Section D3). As also described in Section D3, we will: (1) expand the number of Teach for America teachers in these schools; (2) begin the NC Teacher Corp, based on the Teach for America model, to bring additional teachers to these schools; (3) create a stronger, three-year induction support program for other new teachers in these schools; and (4) make further use of virtual and blended courses to expand the opportunities for

students in these schools. In addition, we will provide incentives tied to student learning gains for teachers and principals in the lowest achieving schools, as described in Section D2.

The NC RttT Initiative to Turn Around the Lowest-Achieving Schools (*TALAS*)

With RttT funding, the *NC TALAS Initiative* will build on lessons learned from our work in rural and urban LEAs with our current *Restart*, *New Schools*, and *District and School Transformation* approaches to transition to the four models described by the Department of Education 1: Turnaround, 2: Restart, 3: Closure; and 4: Transformation. Our previous work establishing new schools, restarting schools and transforming schools has prepared us well to implement these models successfully, since our current models are very similar to the Department's models. Our three primary goals of the *TALAS* also are natural extensions of our ongoing work with our lowest-achieving schools:

1. *Dramatically improve achievement in the lowest 5 % of schools in NC where Performance Composites are below 50% proficient and graduation rates in high schools where the graduation rate is under 60%*;
2. *Raise district-wide performance in those districts with a high concentration of lowest-achieving schools*; and
3. *Provide new opportunities for students in the lowest-achieving schools and districts to attend schools that will better support their achievement and successful graduation and lead them to college and career readiness.*

Meeting these goals will result in measurable outcomes in the schools involved: improved student achievement; increased graduation rates; reduction of achievement gaps; evidence of more challenging courses of study; and evidence of increased readiness for post-secondary opportunities. Additional outcomes will be an increased supply and retention of effective leaders and teachers.

On May 27, 2010, the NC General Assembly approved, and the Governor signed, an act entitled *The Reform of Continually Low-Performing Schools*, which is effective immediately. The act expands G. S. 115C-105.37, which provides for the identification of low-performing schools. (The original Statute and the newly approved bill are provided in Appendix 40.) This new act provides authorization for the State Board to approve requests from local boards of education to reform continually low-performing schools by using any of the transformation, restart, turnaround, or school closure models. The act also specifies that the State Board of Education

shall establish procedures to implement the act, including annual reporting requirements for local boards that use one of these models and a procedure for removing or continuing the authorization. The definition of each model in the act is based directly on the Federal guidelines for these models. For the Restart Model, the act specifies that:

> *The State Board of Education would authorize the local board of education to operate the school with the same exemptions from statutes and rules as a charter school authorized under Part 6A of Article 16 of this Chapter, or under the management of an educational management organization that has been selected through a rigorous review process.*

LEA Restart Schools under this bill would have the flexibility of charter schools and would meet the Federal guidelines for innovative, autonomous public schools; however, they would not be counted against the NC cap of 100 charter schools. Therefore, this act allows for the establishment of additional innovative, autonomous schools in NC.

The Transformation division will provide management and oversight for the *TALAS* initiative. The initiative will include the following steps:

Ensure that all schools and all districts that meet the lowest-achieving criterion receive appropriate support services designed to increase student performance to a level significantly above the lowest-achieving criterion.

We will target the 132 schools meeting the criterion described above. Our data show that schools with below-50% proficiency composites (*i.e.*, schools in which more than 50% of the students' test scores on state assessments are below proficient) are synonymous with the lowest 5% of schools in NC and with Title I schools in improvement, corrective action, or restructuring. Our goal is that, by SY 2013-14, all of these schools will be well above the 50% proficiency composite measure, enabling NC to redefine lowest-achieving as those schools with a composite measure below 70% and to then apply Transformation division resources to schools in the 50% to 70% range. These schools begin with performance composites at differing levels, but in general, we will seek a three-year increase of 20 points for each school. From our previous work in the Transformation division, we know a three-year gain of 20 points is both possible and realistic. In addition, we will seek a three-year increase in graduation rates of no less than 15%, or an overall rate of 60%, whichever is higher. Tied to this goal is our ongoing effort to transform the culture of low expectations and low

performance by building local capacity, so that change is sustained and districts and schools continue to move toward 100% proficiency.

Require district agreements to address the improvement of the lowest-achieving schools.

Districts that contain lowest-achieving schools will be required to agree to the following:

- Districts agree that all lowest-achieving schools (as outlined in the definition above) will engage in the Transformation division comprehensive needs assessment, accept Transformation division change coaches to work with the school(s) and district through the change process, engage in the development of a thorough change plan with implementation map, secure any appropriate partners, and work with the Transformation division to monitor progress and adjust plans as needed;
- Districts identified for District Transformation will accept a district transformation coach to support the district itself in efforts to build capacity to increase the sustainability of school improvement;
- Districts commit to utilizing one of four models in each of their lowest-achieving schools: turnaround, restart, closure, or transformation, as defined by the US Department of Education. LEAs with more than nine low-achieving schools – currently Charlotte-Mecklenburg, Durham, Forsyth, and Guilford – will not be able to select the transformation model for more than 50% of their schools;
- Districts agree to replace school leadership, involving the Transformation division in the process, if a principal has led a lowest-achieving school for the two years before Transformation division intervention without adequate progress in improving student achievement. The baseline requirement for improvement is at least 10-point growth on the school's performance composite across two years of school leadership;
- If a school has made less than a 5-point increase on its performance composite after two years, the district will relinquish to the State Board oversight and control of curriculum and instruction, personnel, and budget and final decisions regarding school management and governance; *and/or*

- Districts recognize that the State Board will require more aggressive intervention in lowest-achieving districts and schools if the district administration does not provide sufficient leadership for and cooperation with the turnaround process.

Increase the strategies and options available in school and district turnaround plans.

To begin, *TALAS* will enhance and expand the current comprehensive needs assessment process by supporting schools and districts as they work to better understand the results of their assessments and develop strategic plans for change and for improving instructional practice. This effort is already underway, with Cambridge Education providing consultation and training that will further enhance the Transformation division assessment of struggling schools' processes, procedures, and instructional practices by including a rubric designed to evaluate impact on student learning. Change coaches will be identified and assigned to work with school leadership and instructional personnel.

Then, in an effort to customize supports for participating LEAs, we will make additional strategies and options available as they are identified during the comprehensive needs assessment process. In addition to those described for the coaching model above, the choices will include:

- Further revisions in school governance and management structures;
- Strategic staffing initiatives, including incentive and learning team models, as described in Section D3;
- Targeted teacher and principal candidate recruitment, preparation, and induction, as described in Section D3;
- Engagement of Teach for America or NC Teacher Corps teachers, as described in Section D3;
- Provision of a team of DPI community coaches to assist districts and schools with development of community support for school change, acceptance of external partners, recognition of the reality of current student achievement, and engagement of community and parents in the change process;
- Increased use of NC Public Virtual School courses, as described in Section D3;
- Extended learning time for students;

- Effective implementation of instructional technology such as those demonstrated in the NC Learning Technology Initiative;
- Development of higher education, business, and community partnerships;
- Partnering with an Education Management Organization or external reform partner; and
- Closing a school and reassigning students.

Develop a set of STEM "cluster" high school networks.

As noted above, one of the lessons learned during the past several years is that turning around the lowest-achieving districts and schools requires more than just intervening at the building level; as important is working to change the educational opportunities available to students. Building on the foundation of redesigned schools and Early College initiatives and using the New School model described above, the NC RttT plan will address this lesson learned with the development of networks involving innovative STEM-focused schools. RttT support will further the development of a set of anchor schools at the center of each cluster network, whose themes will reflect their importance to NC economic and workforce development requirements: 1) engineering and energy; 2) aerospace; 3) biotechnology and agriscience; and 4) health and life sciences. These unique school settings will provide another option for students, especially those in urban and rural poor communities that are most often served by the lowest-achieving schools. This approach will serve to attract students traditionally underrepresented in STEM fields and to prepare students to face the "Grand Challenges" of the 21st century, as outlined by a committee of the National Academy of Engineering (see Appendix 47 for more information). Preparing students to meet these Grand Challenges requires a project-based approach to teaching and learning and will provide rich opportunities for cross-disciplinary connections and service learning built upon curriculum in science, technology, engineering, and mathematics. Tackling such Grand Challenges requires consideration of: the economic, political, and social barriers to solutions; the impact of decisions; and issues of ethics, sustainability, and equity.

Beginning with the STEM-themed high schools already operating in NC, we plan to: 1) develop STEM-*anchor schools*, one for each of the four selected themes, designed to provide leadership in curriculum innovation (via, for example, Project Lead the Way, Engineering for the Future, and other engineering programs), professional development, technology use, and models of collaboration

with business and higher education partners, and, overall, to serve as test-beds for innovation; and 2) link these anchor schools to a growing set of "cluster" networks of schools that serve high-need communities throughout NC. While RttT funding will be used to advance the development of the initial four STEM-anchor schools and their associated "cluster" networks of affinity-like schools, NC, local, and other funding will support further development of other schools and networks (*e.g.*, Project Lead the Way, Health Sciences, Schools-within-Schools) across the larger STEM network.

Figure 12 below illustrates working plans for the STEM anchor schools and the networks that support them.

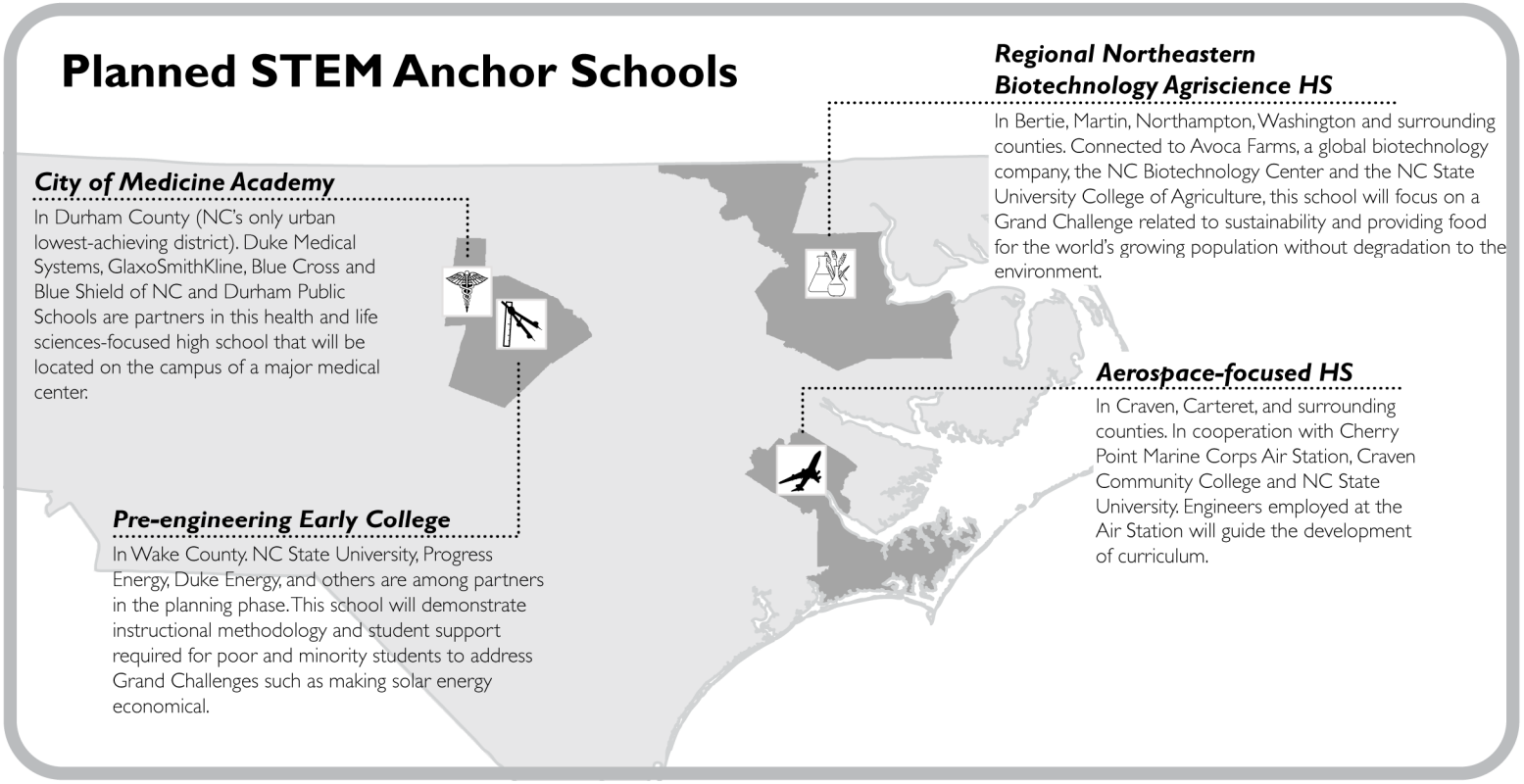


Figure 12: Working Plans for STEM Anchor Schools

As the hub of each cluster, the anchor school will accelerate the development of a fully articulated and coherent curriculum, instruction, assessment, and professional development model consistent with the NC vision for STEM education. Anchor schools also will provide support for peer schools within each cluster, including peer school reviews, in which teams from these peer schools visit an anchor school to observe classes, collect data, and provide feedback on teacher-developed questions about student learning and questions about school-wide practices to support continuous improvement. These unique learning environments will represent opportunities to engage parents and the private sector in further development of innovative and charter-like school settings.

Building anchor schools within networks of schools that are focused on STEM education will enable NC to enhance student choice and ensure successful innovation in high school education. These networks will be comprised of well-articulated, effective STEM schools with community supports inside and outside the education sector that are comprehensive in scope and linked to disciplines closely aligned with the workforce demands of the emerging economy. The quality of these learning networks not only will add to the deepening of teacher capacity to fully integrate a coherent model of STEM curricula across their schools, but also will build the necessary infrastructure for a core of learning networks and systems that will help sustain the work across the state. With a goal of ultimately affecting all classrooms, lessons learned from this approach will integrate with the state-level turnaround of the lowest-achieving schools and districts while also aligning school innovation with economic and workforce development.

Connect TALAS and STEM schools with community & business collaborators.

NCDPI and the STEM schools initiative connect with two other major new NC initiatives. The first is the NC STEM Community Collaborative (NC STEM), established in 2008 by NC leaders, MCNC, and the Bill & Melinda Gates Foundation. This collaborative recognizes the essential role of cross-sector community ownership in redefining education to more closely align with the new economy to ensure sustainable innovation. Through this collaborative, several community design teams, formed by local leaders of business, all levels of education, economic development, and community anchor institutions and embedded staff from the NCDPI and non-local leadership institutions, already are planning to establish and support STEM-themed high schools as well as other evidence-based innovative STEM programs aligned with RttT assurances (*e.g.*: programs implementing innovative human capital models for

teacher recruitment, preparation, retention, and compensation across a district; an experience-based learning "hub" on a corporate campus for integrated delivery of professional development; lower-income/minority internship programs, learning labs, and externships tied to STEM careers). NC STEM builds public demand for the need for STEM skills for all children, connects communities' efforts with a network of NC and national STEM innovators and experts (including a multi-state STEM consortium fostered by the Bill & Melinda Gates Foundation and Battelle Memorial Institute), and assists with the leverage of public and private funding towards scaling sustainable innovation.

Second, in 2009, the NC General Assembly established the JOBS Commission (Joining Our Businesses and Schools), chaired by Lt. Governor Walter Dalton, for the creation of new approaches to education in each of NC's seven economic development regions that will align with promising growth sectors of the economy, especially those driven by the pre-eminence of the sciences and technology. The JOBS Commission serves as an advisor to the NC STEM Community Collaborative, and vice versa, ensuring the unique assets, needs, and economic engines in each of the seven economic development regions are connected to local education pipelines. Each economic development region has or will have at least one NC STEM Community. This model allows the learning, practices, and innovations with the most efficacy and impact to propagate quickly through a statewide collaborative network that includes the anchor STEM schools, network of new schools, LEAs and other levels of education, NC and regional institutions, informal learning organizations, business and industry partners, and policy makers.

Evaluation

Specific questions, data sources, and timelines governing the evaluation of these initiatives are included in Appendix 7.

Evidence

Approach Used	# of Schools Since SY 2004-05	Results and Lessons Learned
School Assistance* *Schools identified as low-achieving under NC statute	**2004-06** 5 schools	Two seven-person teams for each school; extremely expensive; can serve few schools Erratic progress; school performance may go up when assistance teams are present, down the following year Model was actually in place for a 10-year period (1997-2007)Lessons learned: • Assistance necessary over multiple years due to the quick drop when services were removed • Need to develop a model to serve more schools within an existing budget (serve to scale)
School Coaching Model^ ^ Schools identified for performance under 60% proficient	**2006-09** 31 high schools **2007-09** Additional 35 high schools 37 middle schools	Efficient and cost effective; same budget as 2004-06 Some schools' proficiency initially was as low as 20%, but by third year, almost half of the high schools exceed target of 50% proficient Majority of schools improve; some dramatically (performance composites above 70%) Lesson learned: • In rural districts with one or two high schools, intervention needs to be systemic to the district • In urban districts there was need for central leadership to focus on issues and direct resources Model outlined as part of ***TALAS***
District & School Coaching Model	**2008-09** 5 districts	Voluntary partnership between district and NC Change coaches provided by NC First year results show considerable improvement in majority of district schools Model outlined as part of ***TALAS***
Transformation model under Court Consent Order	**2008-09** 1 district	Partnership through Consent Order Monitored by the court system Change coaches provided by NC State recommends to the LEA decisions related to finance, personnel, and C&I

Approach Used	# of Schools Since SY 2004-05	Results and Lessons Learned
NC Restart (including STEM)	**2005-06** 10 high schools **2006-2007** 9 additional high schools (1 Transformation division [DST] school) **2007-2008** 16 additional high schools (10 DST schools) **2008-2009** 1 additional high school	Nearly three quarters of the redesign high schools with senior classes in 2008-09 (17 of 23 schools) achieved graduation rates outpacing those of comparison schools in their districts. Seventeen of the schools also had graduation rates above 80 percent, with eight of the 17 with rates of at least 85 percent. Lessons Learned: • Low capacity districts need a lot of content area support to fully integrate STEM curricula. • Leadership development is critical at the central office and district level to support effective innovation.
NC New Schools Project Early College	**2005-06** 13 schools **2006-07** 20 additional schools **2007-08** 9 additional schools **2008-2009** 18 additional schools **2009-10** 10 additional schools (1 transitioned from DST/NSP STEM school)	On several academic and behavioral measures, ECHSs and their students consistently outperform their peers (as highlighted in text above). ECHS students earned higher grades, on average, than college-age students last year in community college courses. Lessons Learned: • Personalization and appropriate support for students, particularly those of first generation college goers can indeed demonstrate dramatic academic results. • Blended models for college classes help to improve both access and can be scaled – simultaneously. • Innovation and collaboration with multiple IHE partners requires authentic and genuine communication links, strategies and partnership.

Performance Measures	Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014
Turnaround Model	3 middle schools	6 middle schools	9 middle schools	12 middle schools	15 middle schools
Restart Model (including NC *Redesigned School* variation)	11 high schools (originally 12, but one closed)	14 high schools	17 high schools	20 high schools	23 high schools
School Closure	4 high schools	6 high schools	8 high schools	10 high schools	12 high schools
Transformation Model	59 high schools 34 middle schools	70 high schools 40 middle schools	80 high schools 50 middle schools	90 high schools 60 middle schools	100 high schools 70 middle schools
New School Model (added by NC based upon prior data and results) *Anchor Schools Established* *Affinity Cluster Networks Established*	 0 0	 2 0	 4 2	 4 3	 4 4

Note: As indicated in the text above, while current DST operation is heavily focused on a *Transformation Model* as defined in the RttT guidelines, in reality we operate using variations very similar to the other three USED-defined models and we will have no difficulty transitioning to those models. In the three years of NC Turnaround, 20 new schools were created and four schools closed. Two reopened as STEM schools, one reopened as five *Redesigned Schools*, and one closed and was replaced by five redesigned high schools under the Coalition of Essential Schools model. In addition, eight more STEM schools were carved from existing high schools. We have used elements of the *Turnaround Model* in selected urban settings where new principals and new leadership teams have entered an existing school. We do not plan to phase in gradually the number of schools we will serve, but will begin the change process for all identified schools immediately. We know this is a three-year change cycle, and we want proven results (based on the *Comprehensive Needs Assessment*) and sustainability within the RttT-funded period. We expect all schools to increase performance composites by no less than 20 points and to lift overall performance above 60% proficient after three years. For high schools, we expect the schools to increase their graduation rates either to a minimum of 60% or to a rate that is15% higher than the current graduation rate, whichever is the higher goal.

(F) General ***(55 total points)***

State Reform Conditions Criteria

(F1) Making education funding a priority *(10 points)*

The extent to which—

(i) The percentage of the total revenues available to the State (as defined in this notice) that were used to support elementary, secondary, and public higher education for FY 2009 was greater than or equal to the percentage of the total revenues available to the State (as defined in this notice) that were used to support elementary, secondary, and public higher education for FY 2008; and

(ii) The State's policies lead to equitable funding (a) between high-need LEAs (as defined in this notice) and other LEAs, and (b) within LEAs, between high-poverty schools (as defined in this notice) and other schools.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (F1i):

- Financial data to show whether and to what extent expenditures, as a percentage of the total revenues available to the State (as defined in this notice), increased, decreased, or remained the same.

Evidence for (F1ii):

- Any supporting evidence the State believes will be helpful to peer reviewers.

Recommended maximum response length: Three pages

F.1. Making education funding a priority

F.1.i. The percentage of total revenues available used to support elementary, secondary, and public higher education for FY 2009 was greater than or equal to the percentage used for FY 2008.

Table 27 demonstrates that NC's support for education has increased in FY 2008-09 when compared to FY 2007-08. The chart presents education funding in two ways, as a proportion of actual State revenue and as a proportion of total funding available for State expenditures. Actual revenue collected in FY 2008-09 was $17.6 billion; however, money was transferred from reserves and other accounts to fund NC operations at $19.1 billion. By either measure, NC increased the State contribution to education.

Table 27: NC's Support for Education

	2007-08 Actual Expense	2008-09 Actual Expense
K-12 - NC Public School Fund	**$8,197,121,797**	**$8,347,474,500**
Higher Ed Total	**$3,256,806,228**	**$2,981,417,588**
NCCCS - 1600 State Aid	*$2,331,866,255*	*$2,123,167,863*
UNC - Public Higher Ed	*$924,949,972*	*$858,249,725*
Education Total	**$11,453,928,025**	**$11,328,892,088**
Actual NC Revenue	**$19,824,083,747**	**$17,626,818,640**
Education as % of NC Revenue	*57.8%*	*64.3%*
NC Revenue: Includes cash transfers/measures to balance budget in FY09		**$19,145,677,966**
Education as % of NC Revenue		*59.2%*

Note: This table shows the entire NC State Public School Fund (SPSF) state support for K-12 rather than the K-12 primary funding formulae (a subset of SPSF) reported in the State Fiscal Stabilization Fund application.

F.1.ii. The State's policies lead to equitable funding (a) between high-need LEAs and other LEAs, and (b) within LEAs, between high-poverty schools and other schools.

The State provides sixty-nine percent (69%) of all current expense funding for NC public schools. The State distributes this funding equitably to local education agencies (LEAs) through three main funding vehicles and 25 different allotment formulas. The NC funding structure specifically addresses the sixty-nine (60% of the 115 total) NC LEAs that are *high-need* by directing significant additional NC resources to these LEAs through categorical allotments (targeted supplemental funding).

The NC funding structure is characterized by three main funding vehicles:

1. Basic Support for Classroom Instruction

Guaranteed Position Allotments (59% of all NC public schools funding).

NC distributes position allotments for teachers, instructional support, assistant principals, and principals directly to each LEA based on its number of students in average daily membership (see examples below). For each allocated position, NC guarantees the salary and benefits based on the State Salary Schedule. Some LEAs supplement teacher salaries with local funds, but even the largest of these local supplements (in one LEA) amount to no more than 15% of the state salary. Because NC reimburses the LEAs for such a high percentage of the salary and benefits of allotted positions, LEAs can hire certified educators whose years of experience and education place them higher on the State Salary schedule without being limited by a specific dollar amount. Consequently, each LEA has a different average salary based on experience and the education level of the certified personnel it hires.

- Teacher positions are distributed to LEAs based on the number of students by specific grades: grades K-3 (1:18), grades 4-6 (1:22), grades 7-8 (1:21), grade 9 (1:24.5), grades 10-12 (1:26.64);
- All schools with 100 students or seven NC-paid teachers receive a principal position. Assistant principal positions are distributed based on the total number of students; and
- For every 200 students, an LEA receives one instructional support position (used for guidance counselors, media specialist, social workers, *etc*.)

Dollar Allotments (12% of all NC public schools funding). Dollar allotments, which deliver specified per-pupil amounts prorated based on each LEA's number of students in average daily membership, provide funding for teacher assistants, textbooks, instructional supplies, school clerical and custodian support, and central office and other resources needed to offer instructional services to NC public school students.

2. Categorical Funding to Address the Needs of Special Populations

NC's basic support for classroom instruction funding model is designed to meet the education delivery needs of an average student. Categorical allotments (27% of all NC public schools funding) target funding to specific groups of students and school districts to supplement services to students who require additional services. Examples of categorical funding include funding for students at risk of academic failure, funding for students with limited English, funding for children with special needs, and academically/intellectually gifted students. To reduce disparities resulting from local education funding, NC provides low-wealth supplemental funding to LEAs identified as not being able to generate local funding to support their schools at the average level for all school districts in NC. NC also addresses the inability of very small LEAs to realize the full benefits of economies of scale available to larger LEAs by providing small-county supplemental funding for LEAs with less than 4,000 students. Recognizing the special issues that concentrated populations of disadvantaged students present for large urban and rural LEAs, NC has a Disadvantaged Student Supplemental Funding (DSSF) allotment to provide additional funding to these districts.

3. Unallotted Funding to Support Selected School Operations

For a limited set of operational needs the State ensures that all LEAs have the ability to pay the actual cost. LEAs are allowed to expend what is required to cover their worker compensation costs, unemployment claims, longevity payments (a supplement for an employee's years of service), and short-term disability costs. The State then covers these expenditures (2% of all NC public schools funding) out of the State budget.

Promoting Equitable Funding within LEAs, Between High-poverty Schools and Other Schools

NC distributes funding to local boards of education. Each board then determines how to distribute the State-provided resources among its schools to meet the specific needs of the LEA's student population. This flexibility to distribute resources per the LEA's needs allows the LEAs to be innovative and to recognize the schools in their district with specific funding needs. Within this flexibility, NC sets the following boundaries to ensure equitable funding between the schools:

- NC has maximum individual class size laws. This ensures that the LEAs allocate their classroom teacher allotments equitably to all schools and classes;
- All certified personnel, including teachers, instructional support, assistant principals, and principals, are required to be paid no less than the salary that the State Salary Schedule specifies for educators with their experience and education;
- As mentioned above, the LEAs are provided 59% of their funds in positions, not dollars. As a result, schools are provided the same opportunity to hire the most experienced and educated certified personnel without being limited to a specific budget amount; and
- While LEAs have some discretion to allocate NC resources within the LEA, the LEAs must report school-based expenditures to NC. Because NC's ABCs accountability program monitors performance by school, NC can use the information regarding school expenditures and student performance to determine whether local funding decisions are creating inequitable conditions between the schools within the LEA.

(F2) Ensuring successful conditions for high-performing charter schools and other innovative schools *(40 points)*

The extent to which—

(i) The State has a charter school law that does not prohibit or effectively inhibit increasing the number of high-performing charter schools (as defined in this notice) in the State, measured (as set forth in Appendix B) by the percentage of total schools in the State that are allowed to be charter schools or otherwise restrict student enrollment in charter schools;

(ii) The State has laws, statutes, regulations, or guidelines regarding how charter school authorizers approve, monitor, hold accountable, reauthorize, and close charter schools; in particular, whether authorizers require that student achievement (as defined in this notice) be one significant factor, among others, in authorization or renewal; encourage charter schools that serve student populations that are similar to local district student populations, especially relative to high-need students (as defined in this notice); and have closed or not renewed ineffective charter schools;

(iii) The State's charter schools receive (as set forth in Appendix B) equitable funding compared to traditional public schools, and a commensurate share of local, State, and Federal revenues;

(iv) The State provides charter schools with funding for facilities (for leasing facilities, purchasing facilities, or making tenant improvements), assistance with facilities acquisition, access to public facilities, the ability to share in bonds and mill levies, or other supports; and the extent to which the State does not impose any facility-related requirements on charter schools that are stricter than those applied to traditional public schools; and

(v) The State enables LEAs to operate innovative, autonomous public schools (as defined in this notice) other than charter schools.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (F2i):

- A description of the State's applicable laws, statutes, regulations, or other relevant legal documents.
- The number of charter schools allowed under State law and the percentage this represents of the total number of schools in

the State.
- The number and types of charter schools currently operating in the State.

Evidence for (F2ii):
- A description of the State's approach to charter school accountability and authorization, and a description of the State's applicable laws, statutes, regulations, or other relevant legal documents.
- For each of the last five years:
    - The number of charter school applications made in the State.
    - The number of charter school applications approved.
    - The number of charter school applications denied and reasons for the denials (academic, financial, low enrollment, other).
    - The number of charter schools closed (including charter schools that were not reauthorized to operate).

Evidence for (F2iii):
- A description of the State's applicable statutes, regulations, or other relevant legal documents.
- A description of the State's approach to charter school funding, the amount of funding passed through to charter schools per student, and how those amounts compare with traditional public school per-student funding allocations.

Evidence for (F2iv):
- A description of the State's applicable statutes, regulations, or other relevant legal documents.
- A description of the statewide facilities supports provided to charter schools, if any.

Evidence for (F2v):
- A description of how the State enables LEAs to operate innovative, autonomous public schools (as defined in this notice) other than charter schools.

Recommended maximum response length: Six pages

F.2. Ensuring successful conditions for high-performing charter schools and other innovative schools

F.2.i. The extent to which the State has a charter school law that does not prohibit or effectively inhibit increasing the number of high-performing charter schools

NC law authorizes the State Board of Education to issue up to 100 charters. Greater than 10% of NC's schools are either State Board-chartered, or "charter-like" autonomous, innovative schools operating under either the 2010 Reform of Continually Low-Performing Schools Act or the 2003 NC Innovative Education Initiatives Act (Appendices 40 and 44). The number of high-performing charter schools in NC has grown rapidly in recent years. NC charter school law does not restrict student enrollment in charter schools.

Of the 2,495 schools operating in North Carolina during the 2009-10 school year, ninety-six (96) were State Board-chartered schools operating under the State's Charter School law (G. S. 115C-238.29A). NC law does limit the total number of State Board-chartered schools to 100 and does limit the number of charter schools the State Board may authorize in any single LEA to five per year. (G.S. 115C-238.29D). If one of the 100 charters is available, NC law requires the State Board of Education to issue a charter to any qualified applicant. One hundred (100) charters equals 3.8% of the total number of NC public schools. Those 100 charters, however, represent only a fraction of the public schools that operate outside the usual State statutory and regulatory requirements. Under the 2003 Innovative Education Initiatives Act (provided in Appendix 44), NC also has additional schools (described in Sections E2 and F2.v) that meet the RttT definition of "innovative, autonomous public schools." These innovative schools function as "charter-like schools" in that they have the same autonomy and emphasis on innovation promoted in the best charter schools. There are currently 70 Early College High Schools, and 36 Redesigned High Schools in NC operating under the auspices of the Innovative Education Initiatives Act. There is no limit on the number of these innovative schools that LEAs may create, in partnership with an institution of higher education. When existing innovative schools are included in the count of "charter-like schools," 8.3% of NC's schools are either charter or charter-like innovative schools. The number of innovative schools and their proportion of NC public schools could increase to well over 10% if LEAs so choose.

The NC General Assembly has just established a new statute (115C-105.37B) that gives LEAs increased opportunity to create charter-like innovative, autonomous schools (Appendix 40). This new statute authorizes the State Board to approve a request by an LEA to reform, through adoption of one of four USED turnaround models, any of its schools that meet the State Board definition of continually low-performing (as defined in G.S. 115C-105.37A). These four now-statutory models are the same RttT-aligned State models described in Section E2. Under the *School Restart* model, an approved LEA would be granted the authority to operate its reformed school with "the same exemptions from statutes and rules as a charter school" that is State Board-chartered.

Many NC charter schools meet the RttT definition of *high-performing*. Since the State Board issued the first charters in 1996, it has worked diligently to increase the number of high-performing charter schools. Evidence shows that, under State Board direction, the NC Office of Charter Schools has helped 50 charter schools increased their overall student performance composites between 2007-08 and 2008-09 (up from a total of five over the prior four years). Equally important is the fact that, between 2007-08 and 2008-09, only four charter schools registered a decline in overall student performance composite (down from 28 during the 2005-06 and 2006-07 school years). The Board has used the following three strategies to work toward having all charters be high-performing:

1. The State Board uses a comprehensive evaluation/selection process for awarding new charters (see Section F2.ii below);
2. NCDPI provides support and tools that have proven effective in high-performing charter schools (*e.g.*, Education Value-Added Assessment System) to the charter schools that are not high performing; and
3. The State Board has effective procedures for closing charter schools that fail to meet the State Board guidelines for student performance or financial compliance (see Section F2.ii below).

The support NCDPI provides to charter schools includes the following:

- Instructional seminars on reading and writing across the curriculum;
- Information and training regarding how to disaggregate and use student test data to improve instruction;
- Information and training regarding how to differentiate instruction;

- Teacher evaluation tools to improve instruction;
- Information and training regarding how to increase student use of higher order thinking skills;
- Training for charter personnel in state and national curriculum initiatives; and
- Training for charter school boards of directors in finance, governance and policy development.

In the past three years, nine *low-performing* charter schools have also received more intensive, tailored support. Of those nine charter schools, eight improved to the point where they then met the high-performing definition.

F.2.ii. The extent to which the State has laws, statutes, regulations, or guidelines regarding how charter school authorizers approve, monitor, hold accountable, reauthorize, and close charter schools

As noted above, any LEA, either in partnership with an institution of higher education or with State Board approval in cases of continually low-performing schools (G.S 115C-105.37B), may establish an autonomous, innovative school that has all the hallmarks of a charter school (see, Sections E2, F2.i, and F2.v). Under NC law (G.S. 115C-238.29A), the State Board is the sole body authorized to issue charters. An independent panel of experts reviews all applications for State Board charters to determine if each applicant meets the required legislative criteria. The panel then presents all qualified applicants to the State Board for review, interviews, and recommendations (the State Board reserves the right to consider and interview any applicant, regardless of the panel's review). The State Board has final authority to grant all charters. Research suggests this approval structure creates the strongest probability of promoting high performing charter schools.[12]

When awarding charters, the State Board follows the authorizing legislation [G.S. 115C-238.29G(a)1] to make sure student achievement is a factor in charter school selections. The State Board also considers whether the proposed charter school would expand learning opportunities for all students, particularly those who are identified as being at risk of academic failure or academically

[12]A recent Stanford study concluded that States that empower multiple entities to act as charter school authorizers realize significantly lower growth in academic learning in their students (CREDO, 2009).

gifted, and whether the charter school would provide expanded choices beyond the types of educational opportunities that are available within the public school system. State Board regulations favor award of charters to applicants who have a sound marketing plan that promotes a diverse student population. Once granted, the charter gives the applying non-profit corporation the right to receive NC and local funding to operate a school free from many NC laws that could inhibit innovation or the independence of the school.

In addition to standardizing the application process, State Board policy establishes a standard charter renewal process, specifies the grounds and procedures for revoking a charter, and describes the mechanism for funding charter schools. The State Board also has several policies in place to ensure that students attending charter schools are receiving appropriate instruction and that charter schools operate in accordance with sound financial and accounting principles.

To assist with the implementation of its policies, the State Board has created an Office of Charter Schools within NCDPI that is dedicated to supporting and monitoring all charter schools. The Office of Charter Schools assigns personnel to each charter school to serve as a point of contact for the charter school and a resource for services, data, and information. The Office of Charter Schools staff visit all assigned charter schools annually to perform monitoring and support functions.

The State Board requires all public schools, including charter schools, to be accountable for public funds and to improve student performance. Although the State Board could authorize an alternative accountability model for charter schools, all current charter schools use the same accountability model used in other public schools. With respect to student performance, State Board policy requires that any charter be revoked if, for two of three consecutive school years, the charter school does not meet or exceed expected growth and has a Performance Composite below 60% (based on NC's ABCs accountability system, as described in Section D2).

A charter school can decide to relinquish its charter, the State Board can decide to not renew a charter, or the State Board can revoke a charter. Since 1996, 44 charter schools have been closed in NC. We have included the following appendices related to this item:

- Charter School Application Statistics: Appendix 48 outlines the number of applicants by year since 1997-98, the number of charters awarded, and the number of charters relinquished, renewed, and revoked;
- Closed Schools 1997-2009**:** Appendix 49 identifies all the charter schools that have relinquished their charter or whose charter was revoked by the State Board; and
- Curriculum Information for Charter Schools: Appendix 50 is a list of all charter schools operating in NC, their locations, their grade structures, and brief descriptions of their core missions.

F.2.iii. The extent to which the State's charter schools receive equitable funding compared to traditional public schools, and a commensurate share of local, State, and Federal revenues

Under the NC funding system for charter schools, the State and LEAs must provide charter schools with the same per pupil operating funding provided to students in regular public schools.

State Funding for Charter Schools

In accordance with NC G. S. 115C-238.29H, the State provides each charter school with the exact same level of appropriations, on a per pupil basis, as the State provides to LEAs. As described above in Section F1.ii, NC allocates funding to LEAs in various funding categories. The State totals these allocations for each LEA and divides the total allocations by that LEA's average daily membership (a figure similar to enrollment that is used for student accounting and budget purposes) to calculate the State allocation for each LEA in dollars per child. To that figure the State adds an amount equal to the per student proportion of any unallotted dollars to account for State funding from unallotted State funds used by LEAs (for example, unemployment compensation, worker's compensation; annual leave, etc.). The State then provides a charter school with the total allotted and unalloted per pupil funding for each student enrolled in the charter school from a particular LEA. As a result, each charter school receives the same amount of State funding per capita (including that for transportation, supplies, textbooks, teachers, etc.) that the student's home LEA would have received if the student had enrolled in a school operated by the LEA.

In accordance with legislation, several categorical State funding categories are not included in the dollar per pupil calculation. In those cases, the charter school is included in the state formula on the same terms as an LEA and receives the funds generated by the formula. Funds for Children with Disabilities ($3,545 per student) and Limited English Proficiency ($3,300 per student) are examples of such headcount-targeted funding. Also some funding for Driver's Training remains at the LEA to provide services for all students in the county.

All State funding generated through the standard allotment formulas based on the number of students enrolled in the charter school is allotted to the charter school for its use. NC does not withhold a percentage of the State funds available to a charter school, as is a common practice in other states.

Local Funding for Charter Schools

NC law [G.S. 115C-238.29H(b)] also requires each LEA to provide each charter school with a proportionate share of its current local operations funds based upon the number of students from the LEA who attend the charter school. The formula for disbursement of local funding for charter schools is as follows:

Dollars in the LEA Operating Fund/ Students Enrolled in the LEA x Number of LEA Students Enrolled in a Charter School = Base Funding Allotment for the Charter School

Federal Funding for Charter Schools

Charter schools are included in Federal funding formulas just as are LEAs and receive those Federal funds based on eligibility. Charter schools will participate in and receive any funding generated as a result of the NC RttT effort.

F.2.iv. The State provides charter schools with funding for facilities, assistance with facilities acquisition, access to public facilities, the ability to share in bonds and mill levies, or other supports

NC laws require charter schools to operate under the same facility requirements as required for any public school. NC does not impose stricter or additional facility-related requirements on charter schools. A charter school can use any State or local funds (as described above in Section F2.iii) to lease facilities, tenant improvements, or pay debt service on loans used to secure facilities. The State does not own local facilities; but local education agencies are required to work with charter schools when facilities are available and not in use by the local district. NC does not directly appropriate a separate/specific funding stream to charter schools only for facilities and county commissioners are prohibited from providing charter schools with local funds specifically for capital outlay projects.

Capital funding in North Carolina is primarily a local expense. Annual State appropriations for capital average less than $250 million (3% of public school funding). As noted in Section F2.iii, NC does not withhold a percentage of the State funds available to a charter school (often 5% in other States).

F.2.v.The State enables LEAs to operate innovative, autonomous public schools other than charter schools

North Carolina has a vigorous program for encouraging innovative and autonomous public schools. In additional to charter schools, 106 such schools, each of which meets the RttT definition of "innovative autonomous public schools," currently are operating in North Carolina.

As noted above, in 2003 NC enacted General Statute 115C-238.50 which authorized the Cooperative Innovative High School Programs. Under this legislation, an LEA and one or more NC institution of higher education can jointly apply, to the State Board of Education, to establish a cooperative innovative high school program. All the cooperative innovative high school programs:

1. Prepare students adequately for future learning in the workforce or in an institution of higher education.
2. Expand students' educational opportunities within the public school system.
3. Center on the core academic standards represented by the college preparatory or tech prep program of study as defined by the State Board of Education.

4. Encourage the cooperative or shared use of resources, personnel, and facilities between public schools and colleges or universities, or both.
5. Integrate and emphasize both academic and technical skills necessary for students to be successful in a more demanding and changing workplace.
6. Emphasize parental involvement and provide consistent counseling, advising, and parent conferencing so that parents and students can make responsible decisions regarding course taking and can track the students' academic progress and success.
7. Are held accountable for meeting measurable student achievement results.
8. Encourage the use of different and innovative teaching methods.
9. Establish joint institutional responsibility and accountability for support of students and their success.
10. Effectively utilize existing funding sources for high school, college, university, and vocational programs and actively pursue new funding from other sources.
11. Develop methods for early identification of potential participating students in the middle grades and through high school.
12. Reduce the percentage of students needing remedial courses upon their initial entry from high school into a college or university.

These innovative high schools are required to either target students who are at risk of dropping out of high school before attaining a high school diploma or offer accelerated learning programs. Cooperative innovative high school programs may include the creation of a school within a school, a technical high school, or a high school or technical center located on the campus of a college or university. Once approved, the school can obtain waivers from NCDPI that free it from restrictions on the use of State funding and from other specific State laws and policies.

The State Board has approved 70 Learn and Earn schools under this law. These schools operate on a community college or university campus and allow students to graduate in five years with a high school degree and two years of college credit. In addition, 36 restructured and/or STEM high schools have been approved by the State Board of Education. A restructured high school is a large

school which has been administratively reorganized into smaller independent high schools operating on the same campus as the previous large high school. Each independent restructured high school adopts an educational theme (such as STEM) and students select the high school that best addresses their interests.

Finally, as noted above, the NC General Assembly has just established a new statute (115C-105.37B) that gives LEAs increased opportunity to create charter-like innovative, autonomous schools (Appendix 40). This new statute authorizes the State Board to approve a request by an LEA to reform, through adoption of one of four USED turnaround models, any of its schools that meet the State Board definition of continually low-performing (as defined in G.S. 115C-105.37A). These four now-statutory models are the same RttT-aligned State models described in Section E2. Under the *School Restart* model, an approved LEA would be granted the authority to operate its reformed school with "the same exemptions from statutes and rules as a charter school" that is State Board-chartered.

(F3) Demonstrating other significant reform conditions *(5 points)*

The extent to which the State, in addition to information provided under other State Reform Conditions Criteria, has created, through law, regulation, or policy, other conditions favorable to education reform or innovation that have increased student achievement or graduation rates, narrowed achievement gaps, or resulted in other important outcomes.

In the text box below, the State shall describe its current status in meeting the criterion. The narrative or attachments shall also include, at a minimum, the evidence listed below, and how each piece of evidence demonstrates the State's success in meeting the criterion. The narrative and attachments may also include any additional information the State believes will be helpful to peer reviewers. For attachments included in the Appendix, note in the narrative the location where the attachments can be found.

Evidence for (F3):

- A description of the State's other applicable key education laws, statutes, regulations, or relevant legal documents.

Recommended maximum response length: Two pages

F.3. Demonstrating Other Significant Reform Conditions

North Carolina has been a national leader in successful statewide early childhood programs (Smart Start, More at 4), services for high-needs students (State Improvement Project, Joint Legislative Commission on Dropout Prevention and High School Graduation, Personal Education Plans), and recruitment and retention of high-quality teachers (National Board Certification support, Fast-Track Math and Science licensure). These innovations have increased student achievement and graduation rates (as outlined in Section A3) and ensured that greater numbers of students enter elementary school prepared to learn.

NC RttT proposal Sections A through E describe various efforts through which NC supports, through law, regulation, and/or policy, conditions favorable to education reforms and innovations that have increased student achievement and graduation rates and narrowed achievement gaps. NC also has implemented other initiatives, not detailed above, that further reflect this systematic commitment to continuous improvement of our education system. Highlighted below are some of the most significant initiatives, which are designed to improve early learning outcomes, support at-risk students, and recruit and retain high-quality teachers and principals.

Improving Early Learning Outcomes

For over a decade and a half, NC has been a national leader in efforts to improve educational outcomes for the youngest high-need students through several programs focused on improving school readiness and the transition between preschool and kindergarten.

Smart Start (1993)

Smart Start is NC's nationally recognized and award-winning early childhood initiative designed to ensure that young children enter school healthy and ready to succeed. Smart Start is a public-private initiative that provides early education funding to all of NC's 100 counties. Annual state funding for Smart Start stands at around $200 million, and the program has raised more than $257 million in donations since it began. These funds are used to improve the quality of child care, make child care more affordable and accessible, provide access to health services, and offer family support. Smart Start is considered a model for comprehensive early childhood education initiatives, and, in 2001, a Smart Start National Technical Assistance Center was established to assist other states with the development of their own early education initiatives. Since Smart Start's inception in 1993, the number of children in NC receiving

higher-quality child care has increased from 20% to nearly 70%, and independent research concludes that children who attend these higher-quality child care centers score significantly higher on measures of skills and abilities deemed important for success in kindergarten (as measured on the *Peabody Picture Vocabulary Test-III*, the *Social Skills Rating System*, the *Concepts about Print* literacy assessment, and the *Woodcock-Johnson* Applied Problems subtest) than do children from lower-quality centers (Bryant *et al*., 2003).

More at Four (2001)

More at Four is NC's statewide initiative for at-risk 4-year-olds, designed to prepare children for success when they enter school by providing a high-quality, pre-K educational program. More at Four funds classroom-based programs at a variety of sites, including public schools, private for-profit, and non-profit child care centers, and Head Start programs. Children are eligible for More at Four based on poverty status and other risk factors, with priority for service given to children who are otherwise not served by a preschool program. An independent statewide evaluation of the program concluded that participating children exhibit significant growth in multiple skill areas (*e.g*., language and literacy skills [receptive language, letter-word knowledge, print knowledge, phonological awareness], math [applied problems, counting], and social skills), that the program has had even greater benefits for children with lower levels of English proficiency, and that More at Four offers "an important and ameliorative experience for children who otherwise may not have such opportunities in the pre-K year" (Peisner-Feinberg & Schaaf, 2008).

NCDPI Office of School Readiness (2005)

NC created the Office of School Readiness to administer and coordinate all of NC's state and Federally-funded pre-kindergarten programs. The Office of School Readiness sets the educational standards and expectations for pre-kindergarten implementation statewide. The rapid expansion of State funding for the More at Four Pre-Kindergarten Program, along with the program's high-quality standards, were the catalysts for coordinating and leveraging all sources of pre-kindergarten funding, expanding access to high-quality pre-kindergarten, and raising the quality of early education statewide. The Office of School Readiness supports a diverse delivery system for pre-kindergarten, including public schools, licensed child care centers, and Head Start. Through the Office and

other partners, NC provides intensive technical assistance for pre-kindergarten in all settings, as well as teacher education, licensure (including support for teachers in the nonpublic sector who wish to pursue state licensure), and ongoing professional development. (Note: The Office has recently been renamed the "Office of Early Learning" to reflect a new focus on aligning of early education standards, assessments, and teacher supports across the PK-3 continuum.)

FirstSchool Demonstration Projects (2010)

FirstSchool is a pre-K-grade 3 initiative led by the Frank Porter Graham Child Development Institute and the School of Education of The University of North Carolina at Chapel Hill to promote aligned public school efforts to become more responsive to the needs of an increasingly younger, more diverse population.

Providing Comprehensive Services to High-Need Students

NC State Improvement Project (NCSIP, 2000; NCSIP II, 2005)

Funded through the USED's Special Education Program, NCSIP seeks to improve the quality and effectiveness of programs and instruction for students with disabilities. NCSIP focuses on recruiting, training, and retaining highly qualified teachers who effectively address the needs of students with disabilities in order to increase academic achievement and decrease dropout rates. As noted in Section A3, over the first five years of the project, the proportion of students with disabilities performing at or above grade level on State math and reading tests has increased significantly (more rapidly than the proportions of non-SIP students with disabilities or even mainstreamed students), and the overall graduation rate for students with disabilities has increased by nearly 15% since 2006.

Personal Education Plans (2001)

Under NC law, any child who does not meet grade-level proficiency is eligible for a Personal Education Plan. A Personal Education Plan aids parents, teachers, and administrators in planning the special interventions a student may need. These interventions can include, but are not limited to, smaller classes, tutorial sessions, extended school days, and alternative learning models. The statute regarding Personal Education Plans (§ 115C-105.41) is included in Appendix 51.

Joint Legislative Commission on Dropout Prevention and High School Graduation (2007)

The NC General Assembly funds grants to focus attention and resources on innovative programs and initiatives that promote keeping at-risk students in school and increase the number of at-risk students who graduate from high school prepared to further their postsecondary education or enter the workforce. NC appropriated $15 million for these programs in FY 2008. The Commission identifies, funds, oversees and evaluates initiatives with the potential develop effective, sustainable, and coordinated dropout prevention and re-entry programs. The Session Law regarding Joint Legislative Commission on Dropout Prevention and High School Graduation is included in Appendix 52.

Recruiting, Compensating, Promoting, and Retaining High-Quality Teachers and Principals

This proposal already has described several relevant NC policies, initiatives, and resources already in place or available across the State, including:

- NC policies designed to support recruitment of high-quality teachers and principals (licensure for Teach for America teachers, innovative and experimental lateral entry programs for teachers and administrators; see Section D1);
  Development of a comprehensive Educator Evaluation System, along with various compensation initiatives supported by the Federal and local funds (Section D2);
- The NC Virtual Public School (which provides high-quality instruction to students in all LEAs; see Section D3);
- Ongoing research into the effectiveness of the State's teacher preparation programs (Section D4); and
- A variety of high-quality professional development providers (Section D5).

In addition, NC has dedicated significant resources to two other related programs that address issues of high-quality teacher and principal recruitment and retention.

Incentives for National Board Certified Teachers (1994)

NC has the highest number of National Board-Certified teachers in the nation, and they make up by far the single largest group of expert teachers in the state. NC supports these teachers by paying the National Board assessment fee, providing paid release time to

candidates, granting renewal credit for those teachers who complete the assessment, and paying Board-Certified teachers a salary differential of 12% of their State salary. The NC Association of Educators has been and continues to be a major support provider for National Board candidates. The State Board of Education Policy concerning National Board of Professional Teaching Standards is included in Appendix 53.

UNC-BEST (Baccalaureate Education in Science and Teaching): Fast-Track Licensure for Science and Math Teachers (2007) UNC System President Bowles has implemented a national model for recruiting and producing K-12 teachers, as highlighted in the National Academy of Sciences report, *Rising above the Gathering Storm* (2007). In place at four university campuses across NC, these fast-track licensure programs help undergraduate STEM majors earn teacher certification without the need for additional years of study. Candidates receive tuition support, and program completers who go on to teach math or science in NC receive annual stipends of $5,000 for up to five years. Two cohorts of BEST teachers (17 overall) have graduated since 2009, and 29 more currently are in the pipeline.

Priority 2: Competitive Preference Priority -- Emphasis on Science, Technology, Engineering, and Mathematics (STEM). *(15 points, all or nothing)*

To meet this priority, the State's application must have a high-quality plan to address the need to (i) offer a rigorous course of study in mathematics, the sciences, technology, and engineering; (ii) cooperate with industry experts, museums, universities, research centers, or other STEM-capable community partners to prepare and assist teachers in integrating STEM content across grades and disciplines, in promoting effective and relevant instruction, and in offering applied learning opportunities for students; and (iii) prepare more students for advanced study and careers in the sciences, technology, engineering, and mathematics, including by addressing the needs of underrepresented groups and of women and girls in the areas of science, technology, engineering, and mathematics.

The competitive preference priority will be evaluated in the context of the State's entire application. Therefore, a State that is responding to this priority should address it throughout the application, as appropriate, and provide a summary of its approach to addressing the priority in the text box below. The reviewers will assess the priority as part of their review of a State's application and determine whether it has been met.

Recommended maximum response length, if any: One page

Priority 2: Competitive Preference Priority – Emphasis on Science, Technology, Engineering, and Mathematics (STEM)

Dating back at least to the establishment of the Research Triangle Park in the 1950s, NC has viewed STEM education as critical to the success of our economic development. Most recently, the NC General Assembly moved forward on approving a set of statewide STEM goals developed by the Governor's Education Cabinet and aligned across all education institutions. This set of goals and measures will cut across each level of the education pipeline and will align with the State's economic development needs. NC's commitment to a continued and expanded focus on STEM in PK-12 education initiatives also is reflected throughout this proposal.

As evidence of NC's success so far, NC boasts a proportion far greater than the national average of students participating in Advanced Placement courses in mathematics (13.4% of the 2008 graduating class, as compared to 9.3% nationally) and the sciences (12.6% of the 2008 class, as compared to 8.3% nationally). In addition, NC scores outpace national averages on the SAT subject exams in math, biology, chemistry, and physics (see Section A3). In earlier grades, average scores on NAEP math assessments have been higher than national averages for over a decade at both grades 4 and 8.

P.2.i. Rigorous Course of Study

NC's rigorous course of study in the STEM areas is documented in the Standard Course of Study in mathematics, science, computer/technology skills, and career technical education (which includes a pre-engineering strand). Beginning with the freshman class of 2010, all high school students now complete a *Future-ready Core Curriculum*. The graduation requirements for this curriculum include four mathematics courses, three science courses (a physical science, biology, and an earth or environmental science), and demonstration of computer skills through a State assessment. Special STEM-focused programs are used widely in NC schools, with, for example, 112 career academies directly related to STEM, including 60 pre-engineering academies affiliated with the national *Project Lead the Way* Engineering program.

In addition, many initiatives in this proposal directly support a rigorous course of study in the STEM areas, including the following:

- ***Ongoing development of new, rigorous standards and assessments in STEM subjects***. NC's dedication to improving math and science standards is exemplified by the work of the Accountability and Curriculum Reform Effort (which oversees the revision of all of NC standards to focus on deeper essential standards) and the scheduled adoption and integration of the Common Core standards into the Standard Course of Study in Summer 2010. This adoption will solidify NC's commitment to internationally benchmarked, "fewer, clearer, and higher" standards. NC has been particularly active in the area of standards and assessment development in math, contributing to both the Common Core validation process in that area and the American Diploma Project's common Algebra I and Algebra II assessments (Section B);
- ***Recruitment, preparation, and support of STEM teachers***. Expanding the presence of Teach for America, developing the new NC Teacher Corps modeled after Teach for America, and introducing a comprehensive Induction Support Program for new teachers (Section D3) all will contribute to increasing the quality and impact of STEM teachers in NC's highest-need schools. In addition, expanding UNC's Teacher Quality Research program to include licensure area- and program-specific analyses (Section D4) will help to reveal concrete steps that can be taken to improve the quality of teacher preparation in STEM areas;
- ***Professional development programs and instructional improvement tools***. These programs and tools will support improvements in teaching mathematics as a first priority within the RttT initiatives (Sections D5 and C3, respectively);
- ***Building a network of STEM-themed high schools throughout the state***. As described in Section F2, RttT funding will help support the development of a small set of exemplary high schools, each focused on a STEM theme, such as biotechnology or aerospace, tied to the economic development of the region. These schools will serve as anchor schools in networks of STEM-themed schools, providing exemplary curriculum, serving as residency sites for participants in the regional leadership academies described in Section D3, providing opportunities for field placements and professional development for teachers, and serving as test-beds for innovation practices in STEM education; and

- ***Providing virtual courses in STEM areas to students statewide***. One of the primary reasons for expanding the NC Virtual School (Section D3) is to provide all students with access to high-quality STEM instruction, even when such instruction is available to a limited degree in a student's brick-and-mortar school. The *blended course* options also will support the growth and development of the on-site STEM teachers who partner with online master instructors to deliver their courses.

The technology infrastructure plan outlined in Section A2 is foundational to these and all other STEM education initiatives in NC.

P.2.ii. Cooperation Across Sectors

Many STEM education initiatives across NC already benefit from the involvement and support of universities, museums, businesses, foundations, and community partners. Examples include:

- ***The NC Business Committee for Education (NCBCE),*** located in the Office of the Governor since 1983, has provided an important link between the NC business and education communities. Many of NC's major technology, banking, pharmaceutical, financial, insurance, manufacturing, and retail businesses are represented on the Committee, and the organization supports all aspects of education, with a specific focus on STEM areas and workforce development (*e.g.*, the NC Center for 21st Century Learning is housed within NCBCE);
- ***The NC STEM Community Collaborative***, funded by the Bill & Melinda Gates Foundation, is designed to create a structure for local, regional, and statewide STEM collaboration among leaders in business, government, education, and economic development. It facilitates communities seeking to improve local education to take advantage of the economic opportunities that STEM offers. The Collaborative also links NC's business and educational assets to community-led STEM approaches, creating cross-community networks as well as connections to the national STEM network. The activities of this Collaborative will be coordinated with the RttT STEM initiatives, providing opportunities for communities to further enhance strategic staffing (Section D3), professional development (Section D5), STEM schools development (Section E2), and other STEM-related initiatives in their communities;
- ***The NC Learning Technology Initiative (NCLTI)*** is supported by a combination of a private foundation (Golden LEAF Foundation), business (*e.g.*, SAS Inc., AT&T, CISCO, Lowe's), and NC legislative funding to enable programs in which every

teacher and student has a laptop computer, with professional development, curriculum integration, and program evaluation also supported. As a result, 1:1 laptop programs have been initiated or are being planned in at least 38 of the 115 LEAs in NC. The emphasis of all these programs is STEM education, with a strong focus on college and workplace readiness. The Education Technology Cloud and statewide digital resources initiative described in Section A2 is closely linked with the NCLTI, providing the statewide infrastructure necessary for its expansion and success;

- ***The NC eLearning Commission***, appointed by the Governor and comprised of PK-12, higher education, business, and government leaders, has guided the development of the NC Virtual Public School, the School Connectivity Initiative, and, most recently, the development of the NC eLearning Portal. This group will play a central role in the Education Technology Cloud initiative described in Section A and in the use of virtual learning for students (Section D3) and educators (Section D5);
- ***The K-12 STEM Education Group*** at NC State University is comprised of leaders responsible for engineering outreach programs, 4-H youth development programs, the Kenan Fellows Program for teacher leaders, the Science House professional development and student outreach programs, the education initiatives of the Solar Center, and a pre-college STEM program for students from underrepresented groups. Members of this group will serve in an advisory role for the K-12 STEM initiatives as a whole, and they also will be involved in specific initiatives, such as the technology initiative (Section A2), the development of standards and assessments in the STEM areas (Section B), pre-service and professional development for teachers in STEM content areas (Section D), and the STEM schools network (Section E);
- ***The UNC-Baccalaureate Education in Science and Teaching (UNC-BEST)*** licensure program (described in Section F3), a fast-track licensure program for undergraduate science and math majors, has been made possible through the support of the Burroughs Wellcome Fund, an independent private foundation dedicated to advancing the biomedical sciences by supporting research and other scientific and educational activities. Burroughs Wellcome committed over $5 million to the development of UNC-BEST; and

- Most recently, NC has created the ***Joining our Businesses and Schools (JOBS) Commission***, which is chaired by Lt. Gov. Walter Dalton. The JOBS Commission will create a partnership between public schools, community colleges, and private businesses to ensure the appropriate educational curriculum is in place for students to maximize their employment potential upon graduation. In particular, the Commission will work with both public and private programs focused on STEM areas. Additional information can be found in Section E.

P.2.iii. Preparation for Advanced Study and STEM Careers

Advanced Preparation for Underserved Populations

The rigorous course of study in the STEM areas, the many initiatives and collaborations focused on strengthening STEM teaching and learning, and the RttT initiatives described in this proposal are all tied to the statewide goal of preparing more students for advanced study and careers in the STEM areas, with a specific emphasis on students from groups that traditionally have been underrepresented in the STEM areas. Example programs include the ***Math and Science Education Network Pre-College Programs*** on nine UNC campuses that prepare underserved students at the middle and high school levels for careers in the STEM areas, and the ***NC State Women in Engineering Outreach Program*** that encourages young girls and women to consider careers in the STEM disciplines.

The North Carolina School of Science and Mathematics

At the most advanced level, NC takes great pride in its ***School of Science and Mathematics***, the nation's first public residential high school with a specialized curriculum in science and mathematics for advanced students, which has served as a model for other schools nationally and worldwide. A constituent institution of the University of North Carolina, the school boasts a faculty with exceptional credentials – one-third hold a doctorate and one-fourth are National Board-Certified. Students come from every LEA in NC, and almost two-thirds of all graduates enter science- or math-related fields. In addition to serving its 650 full-time students, the school provides Advanced Placement courses and enrichment programs to nearly 4,000 NC students statewide each year through distance education and extension programs, and it has provided professional development for more than 5,000 NC educators.

References

Achieve. (2009). *American diploma project (ADP) end-of-course exams: 2009 annual report*. Washington, DC: Author.

Alicias Jr., E. R. (2005). Toward an objective evaluation of teacher performance: The use of variance partitioning analysis. *Education Policy Analysis Archives, 13*(30), 1-13.

Board on Testing and Assessment & National Research Council. (2009). *Letter report to the U.S. Department of Education on the Race to the Top Fund*. Washington, DC: National Academies Press.

Bryant, D., Maxwell, K., Taylor, K., Poe, M., Peisner-Feinberg, E. S., & Bernier, K. (2003). *Smart Start and preschool child care quality in NC: Change over time and relation to children's readiness*. Chapel Hill, NC: FPG Child Development Institute.

Carey, R., Kleiman, G., Russell, M., Douglas Venable, J., & Louie, J. (2008). Online courses for math teachers: Comparing self-paced and facilitated cohort approaches. *Journal of Technology, Learning, and Assessment, 7*, 3.

Carroll, T. (2007). *Policy brief: The high cost of teacher turnover*. Washington, DC: National Commission on Teaching and America's Future.

Center for Research on Education Outcomes. (2009). *Multiple choice: Charter school performance in 16 states*. Technical report. Stanford, CA: Center for Research on Education Outcomes (CREDO).

Confrey, J., Maloney, A., Nguyen, K., & Mojica, G. (2009). *Equipartitioning/splitting as a foundation of rational number reasoning using learning trajectories*. Paper presented at the 33rd Conference of the International Group for the Psychology of Mathematics Education, Thessaloniki, Greece.

Cordeiro, P. A., & Smith-Sloan, E. (1995). *Apprenticeships for administrative interns: Learning to talk like a principal*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Crow, G. M., & Matthews, L. J. (1998). *Finding one's way: How mentoring can lead to dynamic leadership*. Thousand Oaks, CA: Corwin Press.

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX: National Staff Development Council and The School Redesign Network at Stanford University.

Davis, S., Darling-Hammond, L., LaPointe, M. A., & Meyerson, D. (2005). *School leadership study: Preparing successful principals*. Stanford, CA: Stanford Educational Leadership Institute.

Dede, C. (2006). *Online professional development for teachers: Emerging models and methods*. Cambridge, MA: Harvard Education Press.

Dorn, S. M., Papalewis, R., & Brown, R. (1995). Educators earning their doctorates: Doctoral student perceptions regarding cohesiveness and persistence. *Education, 116*(2), 305-314.

Edmunds, J. A., Bernstein, L., Unlu, F., Glennie, E. J., Willse, J., Arshavsky, N., et al. (2010). *Expanding the college pipeline: Early results from an experimental study of the impact of the Early College High School*. Paper presented at the American Educational Research Association Annual Meeting, Denver, CO.

Fuller, E. J., Young, M. D., & Baker, B. (2007). *The relationship between principal characteristics, principal turnover, teacher quality, and student achievement.* Paper presented at the American Educational Research Association, Chicago, IL.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Hale, E. L., & Moorman, H. N. (2003). *Preparing school principals: A national perspective on policy and program innovations*: Institute for Educational Leadership and Illinois Education Research Council: Washington, DC and Edwardsville, IL.

Henry, G., Rickman, D. K., Fortner, C. K., & Thompson, C. L. (2008). *Improving teacher quality in the DSSF pilot districts: A comparison of progress from 2004-05 to 2005-06*. Chapel Hill, NC: Carolina Institute for Public Policy.

Henry, G. T., Thompson, C. L., Fortner, C. K., Zulli, R. A., & Kershaw, D. C. (2010). *The impact of teacher preparation on student learning in North Carolina public schools*. Chapel Hill, NC: Carolina Institute for Public Policy.

Heritage, M. (2008). *Learning progressions: Supporting instruction and formative assessment*. Washington, DC: Council of Chief School Officers.

Hirsch, E., & Emerick, S. (2007). *Teacher working conditions are student learning conditions: A report on the 2006 North Carolina Teacher Working Conditions Survey*. Hillsborough, NC: Center for Teaching Quality (CTQ).

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499.

Jackson, C. K., & Bruegmann, E. (in press). Teaching students and teaching each other. *American Economic Journal: Applied Economics*.

Lockwood, J. R., & McCaffrey, D. F. (2007). Controlling for individual heterogeneity in longitudinal models, with applications to student achievement. *Electronic Journal of Statistics, 1*, 223-252.

Lockwood, J. R., McCaffrey, D. F., Hamilton, L. S., Stecher, B., Le, V. N., & Martinez, J. F. (2007). The sensitivity of value-added teacher effect estimates to different mathematics achievement measures. *Journal of Educational Measurement, 44*(1), 47.

Martineau, J. A. (2006). Distorting value added: The use of longitudinal, vertically scaled student achievement data for growth-based, value-added accountability. *Journal of Educational and Behavioral Statistics, 31*(1), 35.

Master, J., Magidin de Kramer, R., Dash, S., O'Dwyer, L. M., & Russell, M. (in press). The effect of online professional development of fourth grade English language arts teachers' knowledge and instructional practices.

McCaffrey, D. F., Han, B., & Lockwood, J. R. (2008a). *Value-added models: Analytic issues*. Paper presented at the National Research Council and the National Academy of Education, Board on Testing and Accountability Workshop on Value-Added Modeling, Washington, DC.

McCaffrey, D. F., Han, B., & Lockwood, J. R. (2008b). *From data to bonuses: A case study of the issues related to awarding teachers pay on the basis of the students' progress*. Paper presented at the the Conference on Performance Incentives: Their Growing Impact on American K-12 Education at the National Center on Performance Incentives, Vanderbilt University.

Meeks, L., & Russell, M. (2010). *e-Learning for Educators research studies results: Overview of initial findings*. Chestnut Hill, MA: Technology and Assessment Study Collaborative.

Milanowski, A., Heneman III, H. G., & Kimball, S. M. (2009). *Review of teaching performance assessments for use in human capital management*. Madison, WI: Consortium for Policy Research in Education.

Mortenson, T. G. (2008). Chance for college by age 19 by state, 1986 to 2006. *Postsecondary Education Opportunity, 195* (September 2008), 1-16.

Murphy, J. (1992). *The landscape of leadership preparation: Reframing the education of school administrators*. Newbury Park, CA: Corwin Press, Inc. .

Murphy, J. (2002). Reculturing the profession of educational leadership: New blueprints. *Educational Administration Quarterly, 38*(2), 176.

Muth, R., & Barnett, B. (2001). Making the case for cohorts: Identifying research gaps, improving professional preparation, and gaining political support. *Education Administration Quarterly, 38*(2), 176-192.

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. *The Elementary School Journal, 84*(2), 113-130.

National Research Council. (2006). *Rising above the gathering storm: Energizing and employing America for a brighter economic future*. Washington, DC: National Academies Press.

National Staff Development Council. (2001). Standards for Staff Development (revised). Retrieved October 16, 2009, from http://www.nsdc.org/standards/

New Leaders for New Schools. (2008). *Key insights of the Urban Excellence Framework: Defining an urban principalship to drive dramatic achievement gains*. New York: Author.

North American Council for Online Learning. (2007). iNACOL National Standards of Quality for Online Courses. Retrieved December 5, 2009, from http://www.inacol.org/research/nationalstandards/

North Carolina Blue Ribbon Commission on Assessment and Accountability. (2008a). A framework for change: The next generation of assessments and accountability., October 16, 2009, from http://www.dpi.state.nc.us/docs/acre/basis/overview.pdf

North Carolina Blue Ribbon Commission on Assessment and Accountability. (2008b). Report of the North Carolina Blue Ribbon Commission on Assessment and Accountability. Retrieved October 16, 2009, from http://www.dpi.state.nc.us/docs/acre/basis/accountabilityfinalreport.pdf

Oliver, K. M., Brady, K. B., Patel, R., & Townsend, T. (2009). *Formative evaluation report: North Carolina Virtual Public School*. Raleigh, NC: William & Ida Friday Institute for Educational Innovation.

Osborne, J., Overbay, A., Seaton, A., Vasu, E., & Grable, L. (2006). *IMPACT statewide pilot: Evaluation report*. Raleigh, NC: North Carolina Department of Public Instruction.

Peisner-Feinberg, E. S., & Schaaf, J. M. (2008). *Evaluation of the North Carolina More at Four pre-kindergarten program: Performance and progress in the seventh year (2007-2008)*. Chapel Hill, NC: FPG Child Development Institute.

Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal, 44*(4), 921.

Public School Forum of North Carolina. (2009). Better identification and preparation of school leaders. Retrieved January 6, 2010, from http://www.ncforum.org/doclib/Policy_Report_School_Leaders_web.pdf

Raudenbush, S. W. (2004). What are value-added models estimating and what does this imply for statistical practice? *Journal of Educational and Behavioral Statistics, 29*(1), 121-129.

Reiman, A. J., Corbell, K., & Thomas, E. (2007). *New teacher support: A report to the Dean's Council on Teacher Education*. Raleigh, NC: UNC-GA.

Rice, J. K. (2003). *Teacher quality: Understanding the effects of teacher attributes*. Washington, DC : Economic Policy Institute.

Rothstein, J. (2008). *Teacher quality in educational production: Tracking, decay, and student achievement*. Cambridge, MA: National Bureau of Economic Research

Russell, M. (2009). *Preliminary findings for the e-Learning for Educators randomized professional development trials*. Paper presented at the e-Learning for Educators Annual Meeting, Charleston, SC.

Sanders, W. L., Wright, S. P., & Horn, S. P. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education, 11*(1), 57-67.

Southern Regional Education Board. (2004). Standards for online professional development. Retrieved October, 16, 2009, from http://www.nsdc.org/standards/index.cfm

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7*(4), 221-258.

Treacy, B., Kleiman, G., & Peterson, K. (2002). Successful online professional development. *Learning & Leading With Technology, 30*(1), 42-48.

U.S. Department of Education. (2007). *Teachers' use of student data management systems to improve instruction*. Washington, DC.

Waters, T., Marzano, R. J., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Aurora, CO: Mid-Continent Research for Education and Learning.

Xu, Z., Hannaway, J., & Taylor, C. (2007). *Making a difference? The effects of Teach for America in high school*. Washington, DC: Urban Institute.

Yelton, B., & Yeltin, S. (2010). *SIOP professional development and student achievement: Impact across instructional levels.* Research report for Charlotte Mecklenburg Schools. Charlotte, NC: Praxis Research, Inc.